

5-2013

# Remembering the Legacy of Coastal Defense: How an Understanding of the Development of Fort Moultrie Military Reservation, Sullivan's Island, South Carolina, Can Facilitate its Future Preservation

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REMEMBERING THE LEGACY OF COASTAL DEFENSE:  
HOW AN UNDERSTANDING OF THE DEVELOPMENT OF FORT MOULTRIE  
MILITARY RESERVATION, SULLIVAN'S ISLAND, SOUTH CAROLINA,  
CAN FACILITATE ITS FUTURE PRESERVATION.

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A Thesis  
Presented to  
the Graduate Schools of  
Clemson University and the College of Charleston

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science  
Historic Preservation

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by  
Karl Philip Sondermann  
May 2013

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Accepted by:  
James Ward, Committee Chair  
Dr. Barry Stiefel  
Richard Marks  
Rick Dorrance

## ABSTRACT

This thesis examines the landscape evolution of the one hundred and twenty year history of Fort Moultrie Military Reservation (FMMR), Sullivan's Island, South Carolina, one of the United States' Twentieth Century coastal defense installations. During the first half of the century, these technologically advanced fortifications protected the country's coasts as the nation emerged as a world power. When World War II's technological advances made these installations' obsolete, most were quickly converted into new military or government operated public uses. The remainder, including FMMR, was sold after the war to the public, before the limited protections of the National Historic Preservation Act of 1966 were implemented. As a result over the past sixty-five years, the majority of FMMR has been rehabilitated for individual residents' use with little understanding of their overall historical significance. This division of ownership between its private residents and remaining government owners has altered many of the installation's significant features and obscured the island's military origins from its current population. This analysis uncovers these forgotten pieces of island history, by examining the installation's growth during four major historical periods through the lens of the National Park Service's and the U.S. Army Environmental Command's cultural landscape guidelines. Next, by understanding why and how the base became part of the island's modern residential community, a current survey of FMMR's enduring features showcases the broad effects the military landscape had on Sullivan's Island's recent development. By understanding FMMR's historic milestones and their relevance, recommendations that protect and showcase these forgotten landscape features can emphasize the island's history and strengthen its unique sense of place.

## DEDICATION

This thesis is dedicated to the thousands of patriotic American men and women who served at Fort Moultrie Military Reservation during the first half of the twentieth century. Their professionalism and dedication to duty over fifty-two years of the installation's history ensured Charleston's safety during three wars and assisted with the training of numerous U.S. Army units before they were deployed into combat. It is because of their hard work and the nation's other 237 years of military service that the United States' military continues to be the best fighting force in the history of world.



## ACKNOWLEDGMENTS

I would like to extend my sincere thanks to the many individuals that assisted me in completing this thesis. First and foremost, I would like to express my deepest gratitude and love to my wife, Susan and our kids, Hailey and Ethan, for their continual support over the past year. Also, I would like to recognize my parents for instilling my life-long love of history at an early age and for assisting me in the researching this topic at the National Archives along with editing my final text. Without my family's encouragement, this thesis would not have been possible.

Next, I want to acknowledge my committee chair, James Ward for his constant mentorship through this demanding academic process, while also helping me to better understand this difficult cultural landscape. Also, I would like to individually recognize, Rick Dorrance, for allowing me to intern with him over the 2012 summer at Fort Sumter National Monument. I truly appreciate the assistance that you have given me, since we first started to develop this thesis idea over ten months ago. Additionally, I would also like to thank my committee members, Barry Stiefel and Richard Marks, for their help in focusing my research and editing the final version.

Finally, I am very gratefully to other professionals who have assisted me in researching Fort Moultrie Military Reservation and Sullivan's Island- especially Sarah Fick, a local consultant; Andy Benke and Kat Kenyon at the Town of Sullivan's Island; Rick Hatcher, Gary Alexander, and Kate Fowler at Fort Sumter National Monument; Karen Emmons at Historic Charleston Foundation; Mark Berhow and Bolling Smith with the Coastal Defense Study Group; Marie Ferrara at Special Collections at College of Charleston Library; and Michelle Sellars at the SC Historical Society.

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## CHAPTER ONE

### INTRODUCTION



**Figure 1.1: April 8,1902 Photograph of President Theodore Roosevelt and unidentified United States Army Officer on the bow of the *U.S.S. Algonquin*, touring Charleston, South Carolina’s harbor and its historic sites. Courtesy of Underwood & Underwood Printing , located in Chapter 9, *Images of America South Carolina’s Lowcountry* by Anthony Chibbaro.**

Slowly passing into the light waves of Charleston, South Carolina’s harbor after traveling with the morning tide down the Ashley River, the most powerful man in America during the early twentieth century, eagerly looked past one of the nation’s most beautiful cities towards a small island on the north side of the harbor’s entrance. President Theodore “Teddy” Roosevelt, the nation’s hero of San Juan Hill, who would

eventually become the recipient of the nation's highest award, the Medal of Honor, for his actions on that day during the Spanish American War, stood at the bow of the *U.S.S. Algonquin*. In the past four years, "the Colonel," another nickname from his military service, had quickly used his fame and business connections to become New York's governor, Vice President, and then the President of the United States. Now, on one of his first trips as the nation's leader in April 1902, President Roosevelt was visiting Charleston to tour the South Carolina Interstate and West Indian Exposition, which was promoting the nation's southern states' commercial and industrial advantages to domestic and international guests. But, before attending the exposition, the President, an accomplished naval historian on his first visit to this famous southern city, wanted to view the historic and modern coastal defenses of Charleston.

"Major, look at this harbor's proud reminders of our nation's military history, Castle Pinckney solitary and remote, the Battery standing proud at the point of its famous city, Fort Sumter, the famous citadel where the nation was divided, and finally Fort Moultrie, the famous log fort that withstood the British navy during the Revolution," said the President squinting to get a better look as he pointed to each of the fortifications.

"Yes, Mr. President, this harbor has seen some of this nation's most significant conflicts and remains a memorial to the sacrifice of all Americans, who have defended this nation," proudly replied Major Roberts, the president's U.S. Army military attaché.

"I agree, Major, but look there to the north of Fort Moultrie along the ocean coast, that is the future of our nation's military. I want our nation to be defended by the most powerful, technological advanced and intimidating military the world has ever known, to

spread this nation's economic and industrial might around the globe." President Roosevelt stated, now leaning on the ship rail, trying to get closer to the harbor's recently completed modern defenses.

"It is those reinforced concrete batteries of rifled breech loading guns and the modern trained soldiers defending these superior fortifications, at all of our nation's harbors, that are confidently expressing the nation's power. I believe that no foreign power for the next one hundred years will be able to defeat the nation's coastal defenses and I truly believe that these modern batteries along Sullivan's Island will guard this harbor during that time, taking their respected place alongside Charleston's other historic forts." he said as the boat turned away from the harbor entrance and began moving toward the Charleston's docks.

Pushing himself away from the boat rail and moving next to Major Roberts, who was standing at attention, President Roosevelt patted his young military aide on the shoulder. As he moved past, President Roosevelt stopped and looked into Major Robert's eyes and said, "Those batteries will be a part of our future conflicts and be the memorial that represents our sacrifice in defending this country, to the nation's future citizens. They must be remembered."

The president slowly turned away and continued back to his cabin to prepare for his responsibilities over the next few days. Major Roberts relaxed as the president left but remained looking at the new coastal defenses along Sullivan's Island, known as the U.S. Army's Fort Moultrie Military Reservation, thinking about the President's premonition about their future.



As the *U.S.S. Algonquin* moved away, Major Robert's silently wondered, "Would this military reservation still remain on its remote island, protecting the harbor in a hundred years? How would changes in military technology and missions affect its development? And finally what would be remembered about its place in the nation's history."

It is unknown what was truly discussed between President Roosevelt and the unidentified U.S. Army officer standing at the bow of the *U.S.S. Algonquin* as it toured Charleston harbor on the morning of April 8, 1902, as shown in Figure 1.1. The photograph was one of the few taken of the President during his visit to Charleston for the South Carolina Interstate and West Indian Exposition. The image shows President Roosevelt's interest in the area's history and for allotting time on his busy schedule to view Charleston's expanding national military facilities, which were so important to his international policies of "Speak softly and carry a big stick." America's modernization of its coastal defenses over the last two decades of the nineteenth century and throughout the first half of the twentieth century, resulted in the construction of forty-five of these individual harbor defense reservations on both coasts and numerous overseas territories. They served as visible symbols of the America's growing resolve to become a world leader.

But, after more than fifty years of active military service, these reservations became obsolete, were abandoned, and have been left to their individual communities to figure out what should be done with them. Lacking a common understanding of their

historic importance apparent to President Roosevelt and the thousands of Americans who served at these military posts, individual communities developed various methods of adaptively reusing these landscapes. Over the past sixty-five years, the residents of Sullivan's Island have merged the majority of FMMR designed landscape into the island's subdivided grid of private residential lots. A majority of the military's features that defined this military landscape in the past have been lost or are threatened by the continued development of the island's residential beach community. This thesis' overall purpose is to examine the development of FMMR entire landscape, from its initial military construction in 1895 to its present day condition, in order to provide modern recommendations to the island's residents about how to remember the impacts this military reservation has had on the history and people of Sullivan's Island.

To support Sullivan's Island intimidating coast defense fortifications that President Roosevelt viewed on his harbor tour, a large U.S. Army military post was required with all the civic responsibilities of a small city. These responsibilities included new residential areas for single and married soldiers, a transportation and logistics network, recreational opportunities, and garrison support facilities. From 1895 to 1897, over one third of Sullivan's Island was forcefully purchased by the U.S. Army Corps of Engineers in order to begin constructing Fort Moultrie Military Reservation (FMMR) and its coastal defense fortifications that would protect Charleston's growing military and commercial harbor. Over the next fifty years, this 309-acre installation grew in size to twelve varying sized coastal defense concrete batteries and over 250 structures on all areas of the Island. During its fifty-two years of active military life, FMMR underwent

numerous building campaigns that mirrored the twentieth century U.S. military's growth as a result of World Wars, technological advancements, and government's efforts (National Guard & Civilian Conservation Corps) to revitalize the nation's economy between the wars. This thesis' first aim is to provide an understanding of the landscape created by FMMR's military developmental campaigns.

With the post-WWII drawdown and the advancement of military air power and missile technology, America's harbor defenses became obsolete and were disposed of. The next focus of this study revolves around the second civilian life of FMMR. The past sixty-five years of adaptive reuse and redevelopment of this military landscape by the Town of Sullivan's Island, the State of South Carolina, and the National Park Service mirror the problems faced by local, state, and national government organizations across the United States in determining the appropriate methodology for preserving their coastal defense sites while accommodating efforts to repurpose these abandoned military landscapes. The return of these military landscapes to civilian property before the mandatory U.S. military requirements within Section 110 of the National Historic Preservation Act of 1966, resulted in these landscapes' being redeveloped without a clear evaluation of their historic military resources and execution of possible protections. Sullivan's Island's recent history of various governmental and private homeowners' campaigns to preserve, restore, and adaptively reuse different parts of the FMMR military landscape have been repeated across the United States without a common method to consistently treat these military landscapes as a whole. This research will examine the positive and negative effects these redevelopment efforts have had on FMMR by

providing a survey of the existing conditions on Sullivan's Island. This examination of a coastal defense military landscape provides a modern understanding of how these sites have arrived at their current states of preservation.

By comprehending the history of FMMR's building campaigns along with their current conditions, future preservation efforts can include the entire scope of the reservation instead of previous labors that only identify individual historic structures. My methodology is based on the National Park Service's process of examining, understanding and then recommending treatments after completion of a Cultural Landscape Report, by focusing on the landscape's historic significance and remaining integrity. After understanding the remaining integrity of FMMR developmental periods, this thesis can make recommendations to the island's residents that focuses on highlighting the military's forgotten, significant, military features instead of just the remaining buildings that have been converted into private residences.

To support my thesis that future preservation efforts require an understanding of this type of military landscape's development as a whole, this research provides numerous tools that can be applied at similar historic coastal defense sites. Complementing the site's historical research, this thesis will illustrate FMMR different construction campaigns through the creation of numerous developmental period maps. This data will provide comparable milestones and snapshots that will highlight the scope and complexity that these "military cities" had on their landscapes at key moments in the nation's history. Secondly, this examination provides an existing conditions survey of FMMR's remaining contributing landscape features, including existing structure groups,

transportation networks, and utilities/land usage. This understanding of the remaining integrity of the landscape supports an analysis of the site's significance and assists in providing recommendations for future treatment. The final effort combines the historical research and modern analysis of current conditions into a listing of preservation recommendations for FMMR. These conclusions answer the intent of this research by provide Sullivan's Island with a better understanding of their island's development with the remaining scope of their significant military landscape, instead of highlighting specific landmark structures or events that recent past preservation efforts have promoted. With the accomplishment of these recommendations, the island residents can better protect their unique historic landscape and remember the sacrifices of all the Americans that have defended Sullivan's Island shores.

## CHAPTER TWO

### METHODOLOGY

This thesis' primary question of how to evaluate the historic significance of a twentieth century coastal defense installation decommissioned over sixty-five years ago and since converted into mixed public/private owned residential community has not been explored. In contrast, selected coastal fortifications' preservation have been well documented and promoted by national, state, and local governments' park services that have transformed these installations in parts or whole into public recreational and cultural areas. But what has happened to the coastal defense sites that were not converted into these preserved sites and abandoned by the United States military before the mandatory preservation requirements of the 1966 National Historic Preservation Act? These untold stories - of how some of these technologically advanced and monumental fortifications have changed into forgotten, overgrown, and graffiti covered ruins hidden by modern development today - begs many questions. By examining the remnants of one of these sites, FMMR on Sullivan's Island, South Carolina, the following questions can be answered using a comprehensive landscape preservation approach.

- How do you evaluate a twentieth century coastal defense landscape?
- What are the site's historically significant developmental periods?
- How did these milestones mirror larger national and regional events?
- What resources have survived & what has been lost since decommissioning?
- What are the best methods for preserving this landscape's significance?

### Combined Doctrine-Based Approach

A logical approach in answering these questions is a combination of the National Park Service (NPS) doctrine, the national leader in studying cultural landscapes and the United States Army's Environmental Command (USAEC) guidelines that specializes in evaluating historic military sites. First, by examining the site in terms of cultural landscape categories, the NPS regulations can be helpful in determining how these coastal defense installations should be treated, managed and interpreted in the future even though FMMR and other similar sites are not destined to become public parks. The NPS defines a cultural landscape as one of four different and possibly concurrent categories. FMMR, like similar forgotten coastal defense installations can be classified as both a historic site because of its military role and as a historic evolved landscape because of its modern reshaping into new residential uses.<sup>1</sup> By evaluating the coastal defense installations as types of a NPS' defined cultural landscape instead of focusing on individual structure nominations for listing on the National Register of Historic Places, the landscape's individual character-defining features can be identified, documented, and evaluated. In the past, structure-focused preservation efforts have been advanced because of failures in realizing the larger setting, and often the site's interconnected features are forgotten or minimized in order to promote individual desires to preserve their own pieces of the landscape.

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<sup>1</sup> Charles A. Birnbaum. *Preservation Brief 36: Protecting Cultural Landscapes: Planning Treatment and Management of Historic Landscapes* (National Park-Service- Experience Your America. Sept. 1994); Timothy J. Keller and Genevieve P Keller. *How to Evaluate and Nominate Designed Historic Landscapes: National Register Bulletin #18* (Washington, D.C.: National Park Service, 2008.); National Park Service. *Cultural Resource Management Guideline: NPS- 28* (Washington D.C.: National Park Service, 1998).

Secondly, in order to comprehend these intricate military sites in their intended context, an application of the USAEC historic military landscapes guidelines helps in evaluating the site's military cultural traditions and unique composition of physical resources. These guidelines focus on identifying the nation's military landscapes as complex martial communities with operational, residential, industrial, recreational, and many other distinctive characterizing features, which is paramount in identifying the character of a twentieth century coastal fortifications. The developmental story of these vast sites can be connected and applied to future preservation decisions after assessing them according to USAEC's military landscape factors of:

1. Military mission
2. Siting and layout
3. Military's cultural values and traditions
4. High levels of similarity
5. Restricted access and clearly defined borders

These factors are key to describing the relationships among the structures, features, and surroundings of military landscapes.<sup>2</sup> Missing in the overarching NPS doctrine, this specific appreciation of how these USAEC military landscape factors aid in comprehending the design and advancement of coast defense reservations. The combination of both the NPS and the USAEC doctrinal landscape approaches provides

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<sup>2</sup> Suzanne K. Loechl, Samuel A. Batzli and Susan I. Enscoe. *Guidelines for Documenting and Evaluating Historic Military Landscapes: An Integrated Landscape Approach* (U.S. Army Environmental Command Technical Guidelines, 2010).



the most comprehensive methodology for understanding the growth of an interconnected military community like FMMR.

### Cultural Landscape Report Framework

The best way of utilizing this combined holistic approach to answering this thesis' questions is the examination of FMMR in the framework of a NPS technical document called a Cultural Landscape Report (CLR). This formalized method employs the following steps: the historic research of the site's life; a current inventory of existing conditions; an analysis of the site's integrity and significance; and the development of a preservation approach and treatment plan.<sup>3</sup> By completing each step of this systematic approach for FMMR's history, this thesis will propose general recommendations for its future recognition and protection that can be an example to similar forgotten twentieth century coastal defense installations throughout the country.

### Site History

The first step of this thesis is to retell and illustrate the four different significant developmental periods or milestones in FMMR's history. The goal will be to develop a sense for each phase in the installation's expansion that will assist in providing context and the layers of progression these types of installations underwent. Key to understanding the evolution of these periods are the primary archived records from the United States Army site ownership that include installation maps, building blueprints,

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<sup>3</sup> Robert R. Page, Cathy A. Gilbert and Susan A. Dolan. *A Guide to Cultural Landscapes Reports: Content, Process and Techniques* (Washington D.C.: National Park Service, 1998).

official photographs, post newspapers, and the post's historic building records that are now housed in the National Archives. By using these first-hand operational post documents along with additional Sullivan's Island histories and images, each period's defining features will be identified into landscape-focused subcategories. Highlighting different twentieth century national military policies effects on coastal defense installation, these six subcategories are important to uncovering FMMR's evolution:

1. Military mission: Why and how the post's troops and armament executed its intended purpose of defending the harbor and its coastline?
2. Spatial organization: How the specific layout of post areas is due to mission and military traditions?
3. Physical Setting: How to identify the post's environment and what changes to the landscape allowed the garrison to execute its military missions?
4. Circulation routes: How to circulate the movement of personnel and equipment in support of the post's mission?
5. Post utilities: How to supply the installation with the required materials and services to execute its mission?
6. Groupings of structures: Why were sets of buildings constructed or altered to support the post's mission? What makes them different from each other?

Each of the subcategories are examined in each of the four significant period plan histories and illustrated in modern-produced period maps that highlight these changes over the site's history. Additional imagery of certain post locations using period photographs, blueprints and maps will assist in analyzing the changes in the landscape

during these developmental periods. By conducting a detailed investigation of the four significant periods of FMMR's history, the conclusions will provide clear evidence of how the national military efforts resulted in significant changes over the post's fifty-two year military career and how they are interconnected to national, regional, and local significant events in this nation's history.

### Existing Conditions

The second step in analyzing FMMR as a historic military site and a historic vernacular landscape is the completion of a survey of the existing FMMR resources remaining on Sullivan's Island. The past sixty-five years of civilian adaptive restructuring of the reservation into a residential community has resulted in significant alterations not only to the military structures but also the larger context. These changes have been witnessed over the years through Sullivan's Island aerial photograph imagery, which are primary sources for cataloging how the FMMR features have been altered. Additionally in the last twenty-five years, the Town of Sullivan's Island has made it a priority to identify and recognizes their island's historic structures through a number of historic resource surveys and National Register of Historic Places' District nominations.

By using these recent records as a basis of current existing conditions, a new field investigation can focus on identifying and evaluating the FMMR landscape features, like open spaces, installation boundaries, and circulation patterns that have not been previously recognized. After completion of this survey, an analysis of all of the identified existing FMMR features can be verified from the historic site research along

with modern day aerial and ground images. Once this data has been validated, the existing conditions of the remaining FMMR resources can be documented in a current period plan subdivided by the categories of the previous four historic period plans. The conclusions gained from the existing conditions survey will illustrate the significant privatization that has been applied to FMMR's original three hundred acres, but at the same time the remaining features will relate how the island's newly expanded residential community still has a sense of place rooted in its military past.

#### Analysis of Significance and Integrity

In an effort to understand the importance of its remaining resources, the third step of this study is an analysis of its four developmental periods in regards to their significance and remaining integrity. In this section, each of these periods will be examined according to their historical context and their remaining existing features. Each of these time periods' determinations of significance will be validated by an analysis of the NPS' seven aspects of integrity. By judging and charting these qualities of location, setting, feeling, association, design, workmanship and materials for each significant historic period, a meaningful understanding of how their remaining landscape features relate to the historic fabric will be crucial in making future recommendations. Overall, the past sixty-five years of unrestrained private adaptive reuse of FMMR has resulted in a mixture of varying levels of remaining resources for each of the periods that will have to be evaluated individually to determine its integrity and significance in relation to the overall landscape.

### Preservation Approach and Recommendations

The fourth and final step in answering this thesis' questions is the development of a preservation approach and treatment plan for FMMR. Through the conclusions of the first three parts of the CLR produced in this study, the determination of whether preservation, rehabilitation, restoring or reconstruction of the FMMR is the best approach will be made for the current owners of the landscape, the Town of Sullivan's Island and its private residents. The use of multiple approaches for remaining significant military landscape features is expected due to the span of FMMR's historically significant periods and the varying levels of adaptive reuse since its decommissioning. With the inability to provide a sole preservation approach to a single owner, the recommendations for the future treatment of FMMR will be directed at the island's residents, who will have to individually approve and execute them in the future. This thesis' mission is to educate Sullivan's Island residents about their unique military heritage that still surrounds their community today, pressing them to recognize its remaining importance before it is lost, and become a successful example to the nation's other coastal communities struggling to recognize and protect their own forgotten coastal defense landscapes.

## CHAPTER THREE

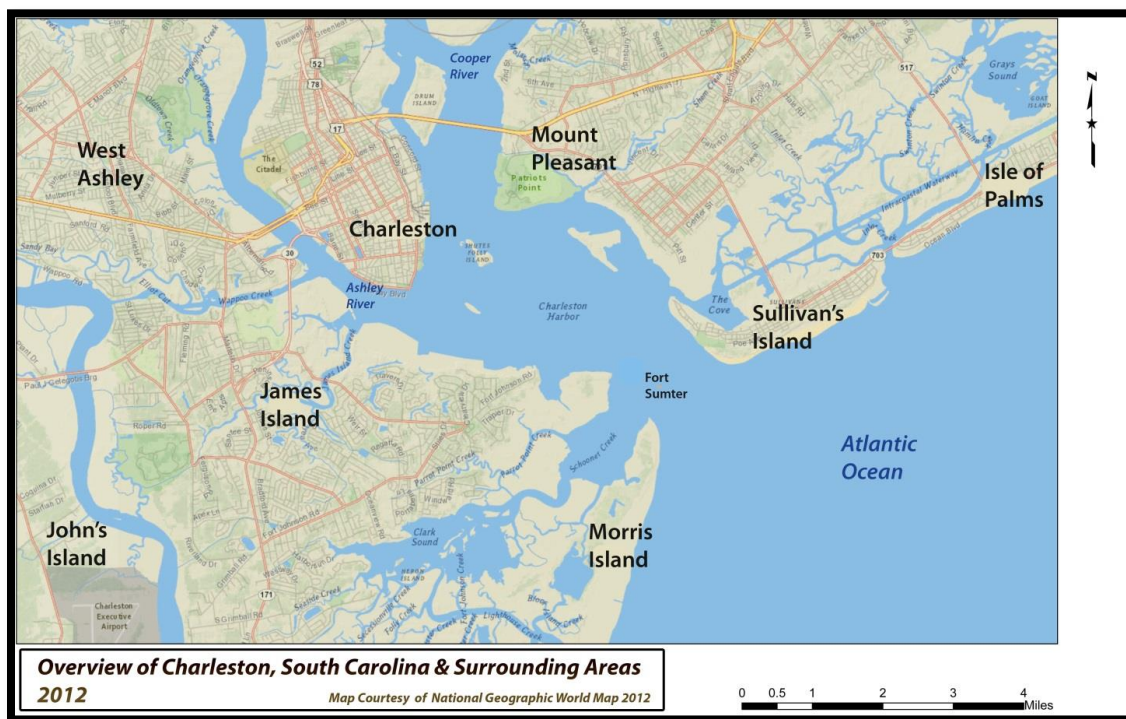
### SITE HISTORY

#### The Early Years: Sullivan's Island from 1670 to 1895

Positioned like a sentinel guarding their narrow harbor entrance, the slender barrier island that would become Sullivan's Island was quickly identified by the early English settlers of Charleston, South Carolina, for its strategic military importance. The west to east four-mile long island dominates the northern edge of the narrow and treacherous ocean channel that empties into Charleston's deep harbor, formed by the congruence of the Ashley and Cooper Rivers. The island's western tip points towards the center of the harbor and Oyster's Point, the site of present-day Charleston. The island then bows along its length from east to northeast with its longer front beach facing the Atlantic Ocean while its enclosed back beach faces a saltmarsh that separates it from the mainland area that would become Mount Pleasant. The narrow northeastern tip of the island is separated from its sister barrier island, Isle of Palms, by the swift and dangerous Breach's Inlet that connects the Atlantic Ocean and the saltmarshes behind the island.

The island's location at the narrow entrance to the harbor, shown in Figure 3.1, made it the perfect place for the young colony's early warning position. Before the arrival of the English colonists to the Charleston area, Native Americans had used this barren coastal island as a hunting and fishing reserve. But quickly after their arrival the native peoples abandoned Sullivan's Island in fear of the European diseases that decimated their

populations.<sup>4</sup> In 1674, Captain Florence O’Sullivan, the colony’s Surveyor General, was ordered to reside on the island by the Provincial Parliament with a signal cannon to notify the colony of any approaching enemy forces; becoming the island’s first European resident and future namesake. The English colony’s decision to create this solitary defensive position on a deserted windswept island would result in the next three hundred years of continuous military occupation of Sullivan’s Island. Over these centuries, the soldiers stationed on this isolated sliver of land in Charleston’s harbor would defend one of the future nation’s wealthiest ports during peace and future conflicts.



**Figure 3.1: Overview Map of Charleston, South Carolina Harbor & Surrounding Areas. Source: Author produced GIS/Photoshop National Geographic World Map 2012 basemap.**

<sup>4</sup> Cindy Lee. *A Tour of Historic Sullivan’s Island* (Charleston, S.C: The History Press, 2010.) 10-11.

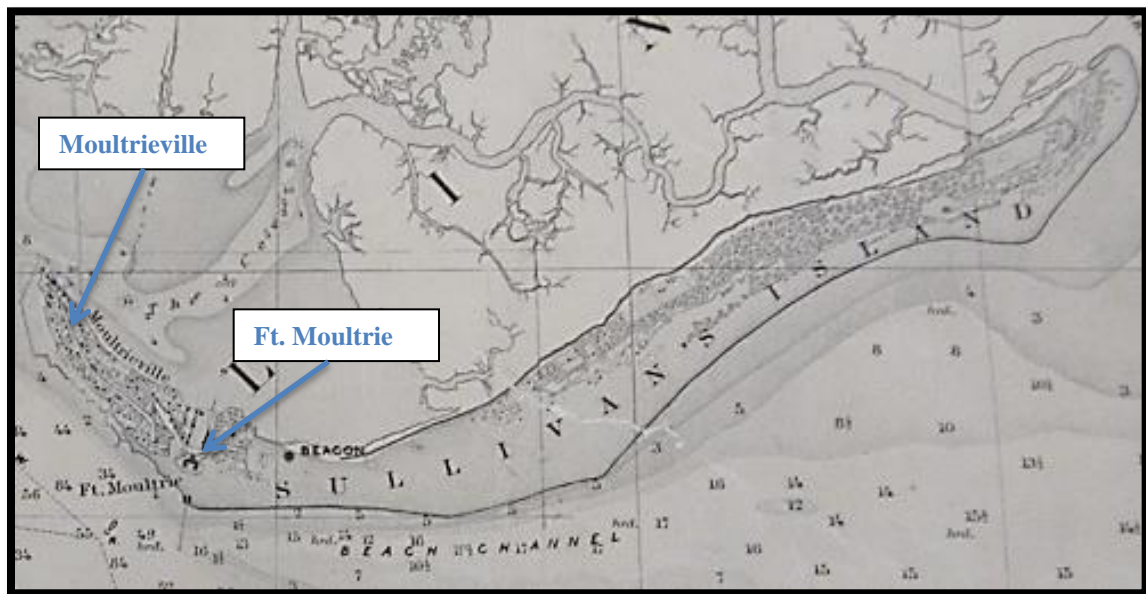
Because of its isolation and the dangerous living conditions of a coastal barrier island during the colony's first hundred years, Sullivan's Island remained an isolated sentry post, a quarantine pest house for newly arriving or diseased colonists, and a preparation site for the multitudes of enslaved Africans being forced to work the lowcountry's coastal plantations. It was not until the beginning of the American Revolution that this remote outpost would be rapidly converted from its sparse landscape into massive planned fortifications to defend Charleston's harbor. On April 26, 1776, the American victory at the Battle of Sullivan's Island resulted in the first major patriot success in the southern colonies, removed the threat of British invasion to this region for four years, and validated the island's importance as the first line of defense for protecting South Carolina's new independence. Quickly constructed in the early months of 1776, the palmetto-walled and sand-filled fortresses at both the southern coast next to the harbor channel and the northern tip next to the Breach's Inlet defeated the far superior British combined fleet and ground invasion force that was trying to capture Charleston. Recounting the location of his crowning military victory in his *Memoirs*, the American commander, General William Moultrie described the battleground as "then quite a wilderness, and a thick deep swamp where the fort stands, covered with live oak, myrtle, and palmetto trees."<sup>5</sup> With this one American victory, the wilderness of Sullivan's Island was memorialized in South Carolina history and was looked upon by the soldiers' decedents as one of the historically important sites in the newly independent country.

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<sup>5</sup> William Moultrie. *Memoirs of the American Revolution* (New York: Longworth Press, 1802.)



After the war, the public's desires for visiting and living on Sullivan's Island, near the patriotically renamed Fort Moultrie, resulted in the state legislature passing an 1787 act taking possession of the island and allowing interested residents to purchase licenses to build structures on land that would return to state control if needed for defense. These transactions resulted in the subdivision of the island into lots and the construction of summer cottages by wealthy Charleston planters and merchants trying to escape the heat and disease periods during the city's summer months. The western end of the island being the closest to Charleston was developed first and incorporated into the town of Moultrieville in the early 1800s.<sup>6</sup>



**Figure 3.2: 1865 U.S. Chief of Engineers Map of Charleston Harbor shows structures mostly on the western end of Sullivan's Island. Courtesy of the National Archives Record Group 77 Drawer 64 Sheets 82-89, College Park, MD.**

The town was contained on its eastern boundary by an 1811 construction of an imposing brick walled, five-point bastion fort that replaced two earlier palmetto and sand

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<sup>6</sup> Preservation Consultants, Inc. "Historic Summary" *Sullivan Island Historic Resource Analysis* (Charleston: Preservation Consultants, 1987.)

forts that had been destroyed by hurricanes in 1783 and 1794. The U.S. Government purchased from the state, four acres of land that made up the third permanent Fort Moultrie, spanning from the front beach across the island's sandy main thoroughfare of Middle Avenue to the backwaters of the fort's cove docks. Manned by varying sized U.S. Army Artillery detachments, throughout the early and middle part of the nineteenth century, Fort Moultrie and its soldiers became valued members of the developing Sullivan's Island community of Moultrieville. By the end of first half of the nineteenth century, the western end of the island was completely populated as seen in Figure 3.2, until another military conflict would alter the landscape once again.<sup>7</sup>

The American Civil War caused widespread changes to the small community of Moultrieville and to Sullivan's Island during its five-year duration. On Christmas night, 1860, Union troops evacuated Fort Moultrie to reinforce its unfinished sister fortification, Fort Sumter, at the center of the harbor entrance. Confederate forces quickly manned Fort Moultrie's abandoned ramparts and erected additional batteries to blockade the harbor. The outbreak of hostilities between the Union and Confederate forces with the firing on and surrender of Fort Sumter on April 13-14, 1861, resulted in the evacuation of all non-combatants from the island and the issuing of martial law during the remaining four years of the Union siege of Charleston's harbor.<sup>8</sup>

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<sup>7</sup> Suzannah Smith Miles. *Island of History: Sullivan's Island from 1670-1860* (Mount Pleasant, SC: Historic Views LTD, 1994.) 49-50.

<sup>8</sup> Jim Stokeley. *Fort Moultrie, Constant Defender* (Washington D.C.: National Park Service, Division of Publications, 1985) 52-68.



**Figure 3.3: 1865 Photograph by the U.S. Army's Office of the Engineers looking east from Fort Moultrie ramparts along the island's barren postwar coast. Courtesy of the National Archives Record Group 77, Box 3, Still Photos Branch, College Park, MD.**

The island's one or two story wood beach cottages and hotels for Charleston's vacationing elite were quickly destroyed from either the harsh bombardments or from the island's defenders who needed the building supplies to create their batteries and bombproof shelters. Additionally, the Confederate garrison quickly depleted the island's remaining palmetto and myrtle tree stands for their firewood during their four winter seasons of defending the island. Figure 3.3 shows the radical transformation from the island antebellum beach resort into a militarized barren moonscape of sand and log fortifications, interspersed with cottage ruins. Even with the island's disheartening landscape during the Union's blockade, the Confederate batteries that lined the front beach shore of Sullivan's Island from its most western tip of Moultrieville to its northeastern point next to Breach Inlet were successful in denying the port of Charleston to the Federal forces until the last days of the war. In the spring of 1865, Confederate

forces abandoned Charleston and its surrounding fortifications, allowing Union forces to reclaim Fort Moultrie, ended Sullivan's Island involvement in the American Civil War.



**Figure 3.4: 1865 Photograph by the U.S. Army's Office of the Engineers looking northeast towards Breach's Inlet from middle of Sullivan's Island. The mounds located across the landscape were Confederate constructed sand covered fortifications and magazines to protect them from the exploding Federal bombardment. Courtesy of the National Archives Record Group 77, Box 3, Still Photos Branch, College Park, MD.**

The intense fighting around Charleston during the Civil War left Sullivan's Island a battle-scarred landscape of massive earthen fortifications, ruins of antebellum beach cottages, and financially destitute owners as seen in the barren photograph of Figure 3.4. The pre-war island property owners' wealth had been forfeited after the war because of its connection to the slavery-based plantation systems. The slow rebuilding of the Charleston economy resulted in a sluggish effort to rebuild on the island. As Charleston elites were able to renew their wealth with new industries in the 1870s, they began renting lots, clearing fortifications, and steadily rebuilding wooden beach cottages on the western half of the island.

Matching the sluggish civilian rebuilding effort, was the United States Army, who reoccupied Fort Moultrie for a short time after the war, before placing it in a caretaker status. While contracted work was completed to clean up the ramparts, magazines, and Civil War ordnance gun platforms in the 1870s, no U.S. Army garrison was assigned for the remainder of the nineteenth century due to the nation's military focus on pacifying the West. As the fort's caretaker from 1866 to the 1880s, a Mr. Gleason was responsible for supervising these minor improvements and personally executing the yearly-required maintenance with only limited funding. The impossible task of one individual maintaining a four-acre fortress with little supervision or funding resulted in the steady deterioration of the fort's armament and emplacements as seen in Figure 3.5.<sup>9</sup>



**Figure 3.5: 1880s Photograph of the Fort Moultrie Caretaker, Mr. Gleason on the eastern bastion of Fort Moultrie and looking towards the east end of island. Courtesy of the Fort Sumter NPS Archives.**

<sup>9</sup> H.D. Bicaise. *Guide Book of Sullivan's Island: with a Sketch of Mount Pleasant and Surroundings* (Charleston: N. Brady Publishing, 1878.) 16-17.

After surviving the sluggish period of reconstruction, the island flourished in the 1880s and returned to its antebellum popularity because of two key factors- significant transportation improvements getting to and around the island and the construction of glamorous beach hotels that catered to both Charleston residents' and out-of-town tourists. When post-war Charleston experienced economic success in phosphate mining, transportation to the island resort returned with several steam ferries that would deliver customers from their docks in Charleston and Mount Pleasant to the docks at the western end of Sullivan's Island. At the docks, a mule-drawn trolley line met the arriving ferry passengers and took them to their destinations along a set of tracks that were installed in the center of Middle Street running past Fort Moultrie and towards the center of the island. This dedicated transportation network was established to cater to the increasing number of locals and tourists that wanted to enjoy the Victorian era notion of sea bathing and beach vacationing.<sup>10</sup>

Since the western end of the island had been resettled after the Civil War by Charleston elites, and it was dangerous for ocean swimming due to the unpredictable channel currents, the center of the island was developed into hotels and rental beach cottages for this increasing demand. This area, was named Atlanticville, after one of these ornate hotels, which had large dining rooms, casinos, dancing halls, beach boardwalks, and changing rooms. As a result in the 1880s, Sullivan's Island became one of the most popular vacationing destinations in the United States.<sup>11</sup>

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<sup>10</sup> W.W. Wannamaker, Jr. *Long Island South: Two of South Carolina Barrier Beaches* (Columbia, S.C: The State Printing Company, 1975.) 206-212.

<sup>11</sup> Preservation Consultants, Inc. "Historic Summary" *Sullivan Island Historic Resource Analysis*.



**Figure 3.6: Engraving of “The Three Sisters” palmettoes that survived both the Revolutionary and Civil Wars on the cover of the 1876 Centennial Carolina Day Pamphlet. Courtesy of Fort Sumter NPS Archives.**

The 1870-80s transportation improvements along with increased tourism to Sullivan’s Island corresponded with a reemergence of an annual celebration that recognized Sullivan’s Island’s long military history and regional importance. In June 1876, Charleston-area residents held elaborate centennial celebrations to commemorate the 1776 American victory at Fort Moultrie. This resulted in significant publicity and the return of local historic pride that had been suppressed since the end of the Civil War and throughout the difficulties of Reconstruction. A two-part centennial pamphlet was produced for the thousands of tourists. These both described the heroic Patriot defense of the island during the battle and promoted the extravagant modern gatherings held around



the Charleston area for the anniversary. The celebrations also brought in numerous militia organizations from the eastern United States to participate in public drills and parades for the crowds. At these events, prominent city and national orators gave rousing speeches about the past bravery of the fort's Revolutionary War defenders, and extolled listeners to preserve their patriotic sacrifice on Sullivan's Island.<sup>12</sup> The grand success of the centennial 1876 and subsequent Carolina Day celebrations in the last decades of the nineteenth century restored South Carolinian's memory of the historic significance of Fort Moultrie, as the nation advanced into a new twentieth century international leading power.

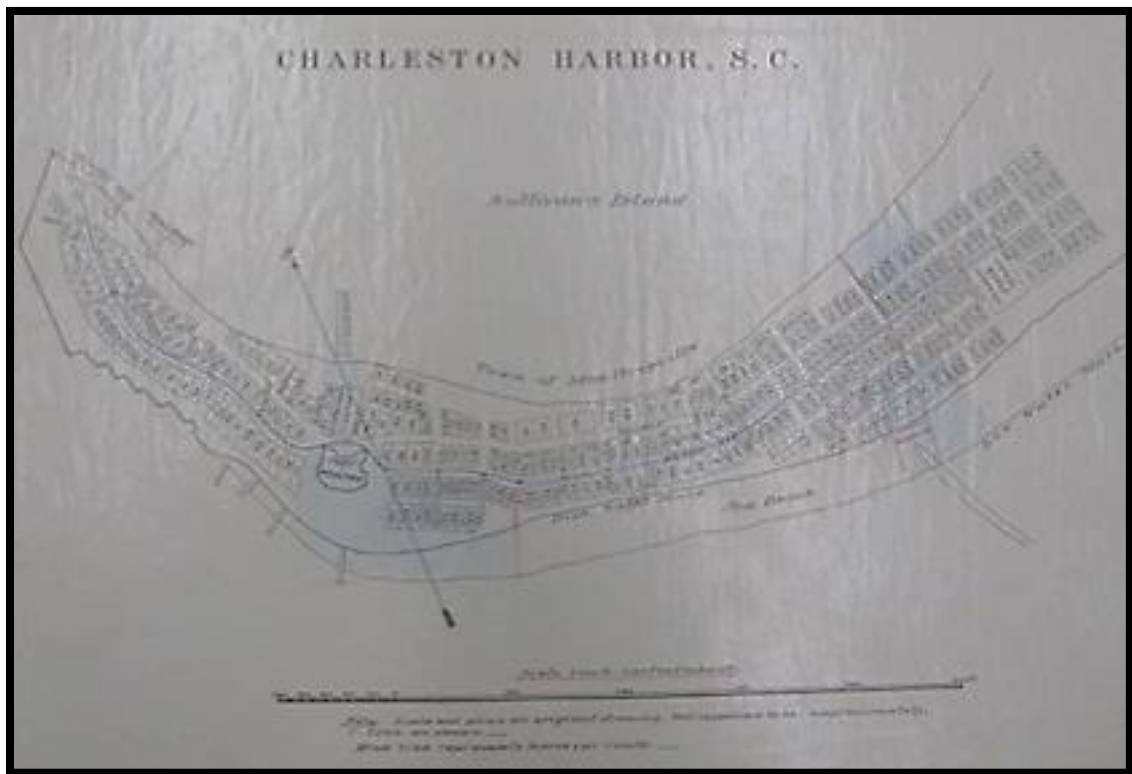
The two hundred years of development of Sullivan's Island from 1674 to the 1880s, had transformed its landscape from an uninhabited barrier island into an oceanfront resort community that had been altered by the military conflicts that had washed over the island. The close proximity, ease of transportation, island temperatures, the beach waters of the Atlantic, the resort hotels and beach cottages, had resulted in the complete development of the western and central areas of the island as seen in the town lot map shown in Figure 3.7. In the middle of this community, the ramparts of Fort Moultrie dominated the landscape and provided a daily reminder to the island's occupants of its past military heritage and current mission to defend Charleston harbor.

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<sup>12</sup> *Fort Moultrie Centennial Pamphlets* (Charleston: Walker, Evans, and Cogswell, 1876.)



As the island's history advanced into the last decade of the nineteenth century and the next military conflicts that would alter its landscape, Sullivan's Island was described "as our little Isle out in the sea ... though it may not be as picturesque as other places of the kind, yet as a great sanitarium, a delightful summer resort, and a spot of historical renown, it stand predominant."<sup>13</sup>



**Figure 3.7: 1890s U.S. Army Chief of Engineers' Map of Sullivan's Island lot locations occupying two thirds of the island. Courtesy of the National Archives RG 77 Dr. 64 Sh. 82-89, College Park, MD.**

<sup>13</sup> Bicaise. *Guidebook of Sullivan's Island* 4.

## 1<sup>st</sup> Period of Development: 1895-1910:

### Building of Fort Moultrie Military Reservation

#### Military Mission

Following the American Civil War, the nation's war-weariness resulted in a twenty-year gap in maintaining its coastal fortifications as seen by the U.S. Army's decision to put Fort Moultrie in caretaker status during the 1870-1880s. While the nation's defenses were dangerously underprepared during this same period of inactivity, the world's military technology continued to develop with advances in steel-rifled, breach loading cannons that utilized innovative propellants and ordnance that could easily defeat the nation's dormant Civil War-era defenses.<sup>14</sup> By 1885, the status of the American coast defense fortifications forced Congress and President Cleveland to assemble a special board chaired by the Secretary of War, William C. Endicott, to examine the nation's coastal defenses and make recommendations for their improvement. Two officers from the Army's Corps of Engineers, the Army's Ordnance Corps, and the Navy, with two expert civilians, combined their extensive knowledge of recent military advances to assist Secretary Endicott in making recommendations of how to modernize the nation's coastal defenses.<sup>15</sup>

In early 1886, the Endicott Board delivered its report to Congress, with recommendations to build new coastal defense fortifications at twenty-seven locations,

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<sup>14</sup> Emanuel Raymond Lewis. *Seacoast Fortifications of the United States: An Introductory History* (Richmond, VA: William Byrd Press, 1970) 66-70.

<sup>15</sup> J.E. Kaufmann & H.W. Kaufmann. *Fortress America: The Forts that Defended America 1600 to Present* (Cambridge, MA: Da Capo Press, 2004) 311-312.

including Charleston, at a cost of over \$126 million. While this enormous request for funding was disapproved by Congress since it would have required a fourfold increase to the 1886's defense budget to implement, the report highlighted the crucial need for updated armaments to protect the nation's important harbors. As a result, the military's defensive budgets for the next ten years included small appropriations for coastal defense improvements. These small sums were mainly focused on testing the Board's recommendations to identify the correct weapons and technological systems, which could be installed quickly if the nation went to war.<sup>16</sup> While not immediately implemented, the Endicott board established a template of what Charleston's and the nation's future twentieth century coastal defense fortifications should look like with varying sizes of modern artillery housed in concrete- separated batteries, protecting emplaced minefields.

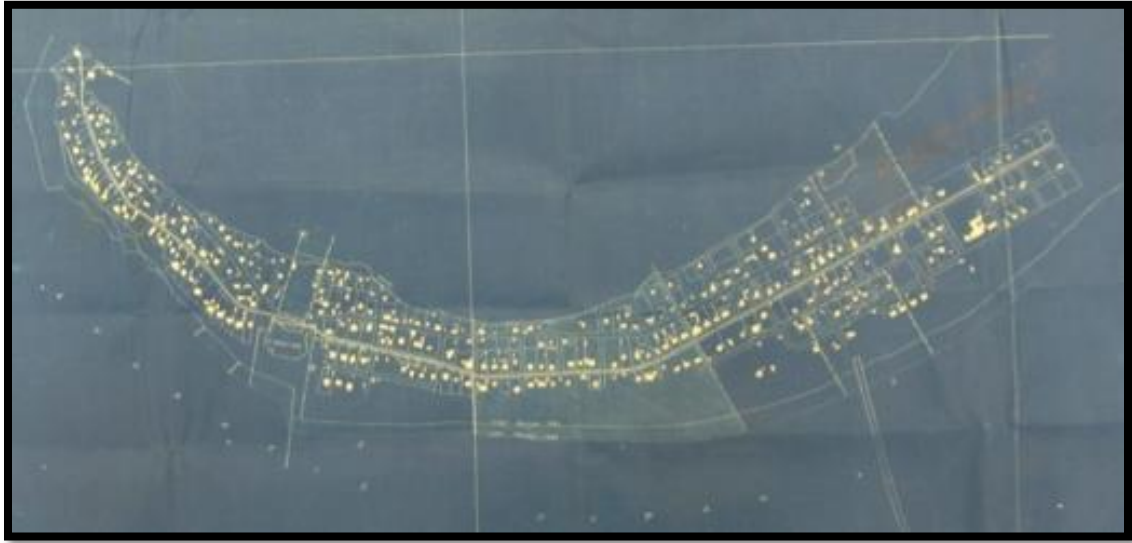
On May 28, 1886, in response to the nation's recommitment to its coastal defense, the United States Army assigned Captain Fredric V. Abbot of the Corps of Engineers as officer in charge of Charleston. His job was to maintain the harbor for commercial shipping and to supervising the construction of new coastal fortifications as funding became available.<sup>17</sup> Over the next ten years, Captain Abbot's priorities focused on creating a safe harbor channel for shipping and protecting the existing fortifications of Forts Moultrie and Sumter from erosion and natural disasters. As part of his additional duties during this decade, he actively surveyed desirable locations around the harbor for modern batteries, and submitted these recommendations to his leadership. But with

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<sup>16</sup> Terrance McGovern & Bolling Smith. *American Coastal Defenses 1885-1950* (New York: Osprey Publishing, 2006) 12.

<sup>17</sup> George Washington Cullum. *Biographical Register of the Officers and Graduates of the U.S. Military Academy* (Boston, 1891) Vol. III. 308.

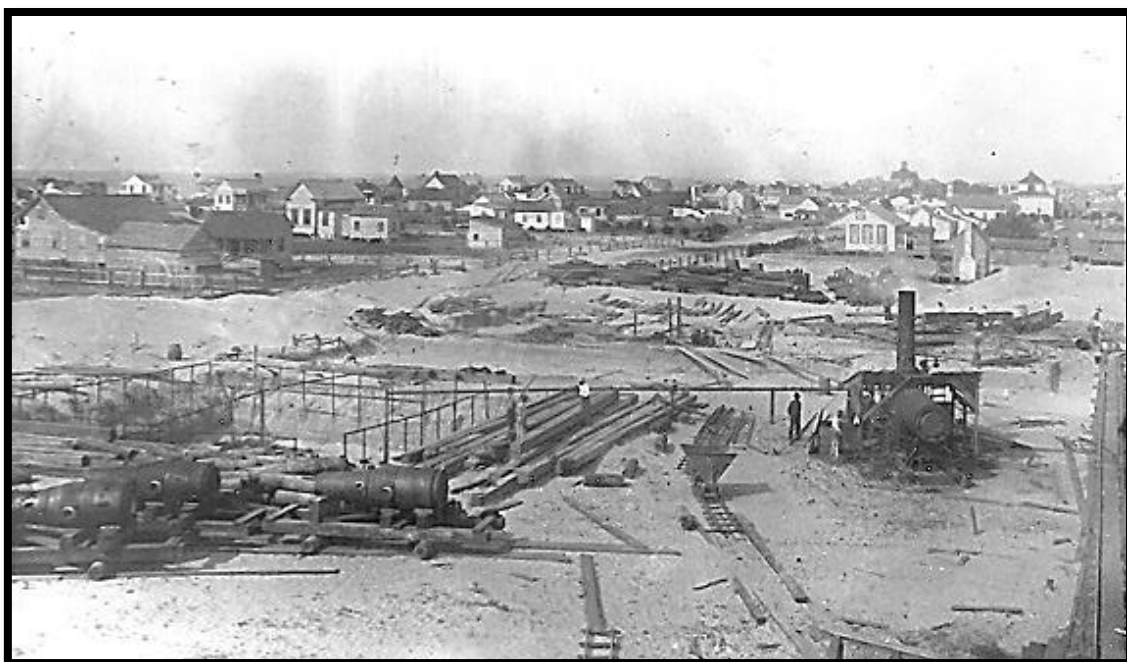
Charleston's overall minimal importance compared to the nation's larger harbors, and no apparent bellicose threats, no significant improvements to Charleston's harbor defenses occurred until international tensions escalated into the Spanish- American War.



**Figure 3.8: 1890 Corp of Engineer Map drawn by CPT Abbot, Officer in Charge of Charleston Harbor showing the potential locations for modern batteries on the site of civilian lots. Courtesy of National Archives RG 92 Blueprint Group Sullivan Island Box 330, College Park, MD.**

Friction between the United States and Spain had steadily increased in the last decade of the nineteenth century over the independence of Cuba and other important Caribbean and Pacific Spanish colonies. The United States had viewed these as possible satellite territories and military supply points for their emergence as a world power. Forecasting a possible conflict with the Spanish along the Atlantic coast, Congress began increasing funding to coastal defense projects, including appropriating \$75,000 for the construction of new batteries to protect Charleston's harbor in early 1896. After finding the ground at Ft Sumter unstable for a proposed modern Endicott gun lift battery, Captain Abbot reallocated \$60,000 of these funds for the construction of a mortar battery on

Sullivan's Island.<sup>18</sup> The first Endicott era battery built to defend Charleston's harbor was constructed one mile north of the existing Fort Moultrie and placed along the cove residential area of Atlanticville, previously known as the Myrtles. From this location, the battery's sixteen, 12-inch mortars commanded the entrance channel to Charleston's harbor and could engage any enemy vessels with plunging fire as they tried to enter.



**Figure 3.9: 1896 U.S. Army Corp of Engineer Photograph of initial construction of the mortar battery foundations looking towards southeast part of the island and the beach cottages of Atlanticville. In the lower right of the image the steam power plant that supplied all construction power is seen. Courtesy of the National Archives RG 77 Drawer 64 Sheet 96-6, College Park, MD.**

In order to construct this proposed mortar battery, Captain Abbot first ordered a channel dredged along the northern side of the island from the cove to the rear of the battery site in March 1896, so that equipment and materials could be shipped directly to the building site. Then, the Atlanta-based building contractor, Jacob Friday and Sons,

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<sup>18</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1896* (Washington D.C.: U.S. Army Corp of Engineers, 1896) 17, 502-504.

erected a steam plant along with a small gauge railroad to assist with the construction. The battery's foundation consisted of over four hundred individual wood pilings and heavy timber grillage that was encased in a concrete slab to support the mortar platforms. With the arrival of the battery's armament in May 1896, the fortification's forty-foot encasement sand and concrete walls were constructed around the battery's four mortar pits from July 1896 to March 1897. Finish work on the mortar battery's interior magazines, galleries and its power-plant building continued with the battery becoming operational to the new Fort Moultrie garrison on 1 January 1898. Over the next decade, the mortar battery was divided into two sections, one named for Captain Allyn K. Capron, 1<sup>st</sup> U.S. Volunteer Cavalry, and the other named for Colonel Pierce M. Butler, of the Palmetto Regiment, SC Volunteers.<sup>19</sup>

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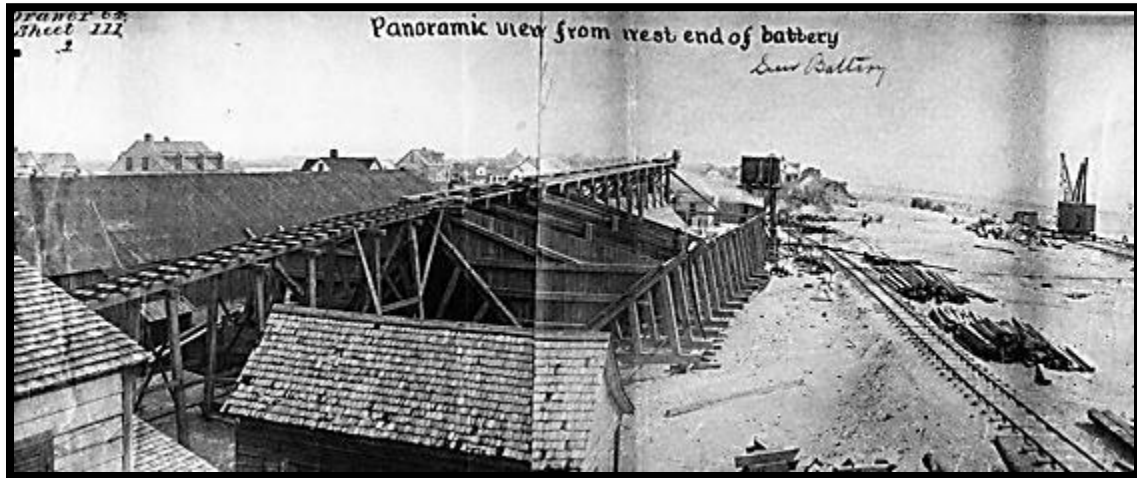
<sup>19</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1896*. 17, 503-517. *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1897* (Washington D.C.: U.S. Army Corp of Engineers, 1897) 17, 673-693.



**Figure 3.10: 1896 U.S. Army Corp of Engineer Photograph shows construction of the mortar battery's concrete encasement walls and use of short gauge railroad to deposit fill sand to create the fortifications small hill appearance. The mortar batteries were battery was divided into two sections, one named for Captain Allyn K. Capron, 1<sup>st</sup> U.S. Volunteer Cavalry killed at the battle of La Quasine, Cuba on June 24, 1898, and the other named for Colonel Pierce M. Butler, of the Palmetto Regiment, SC Volunteers during the Mexican War killed August 20, 1847 at the Battle of Churubusco, Mexico. Courtesy of the National Archives RG 77 Drawer 64, College Park, MD.**

With the construction of the first Endicott battery in defense of Charleston's harbor ongoing in the spring of 1897, the U.S. Army assigned Battery C, 1<sup>st</sup> U.S. Artillery to garrison Fort Moultrie, the first unit assigned to Sullivan's Island since 1866. Upon arrival on the island, the officers and soldiers of Battery C found the interior of Fort Moultrie overgrown by vegetation, its scattered Civil War era armament unserviceable, and the parade ground a cluttered staging area for modern battery construction materials. Slowly clearing away and building their own facilities, the new garrison established

themselves around Fort Moultrie's four-acre, cove parade ground that was located close to the next site chosen for the construction of a new Endicott battery.<sup>20</sup>



**Figure 3.11: 1896 U.S. Army Corp of Engineer Photograph of Battery Jasper's initial construction of in the midst of civilian beach cottages that had been purchased but not yet demolished. Image shows the small gauge railroads and the steam power plant used in its construction. Courtesy of the National Archives RG 77 Drawer 64 Sheet 111-1, College Park, MD.**

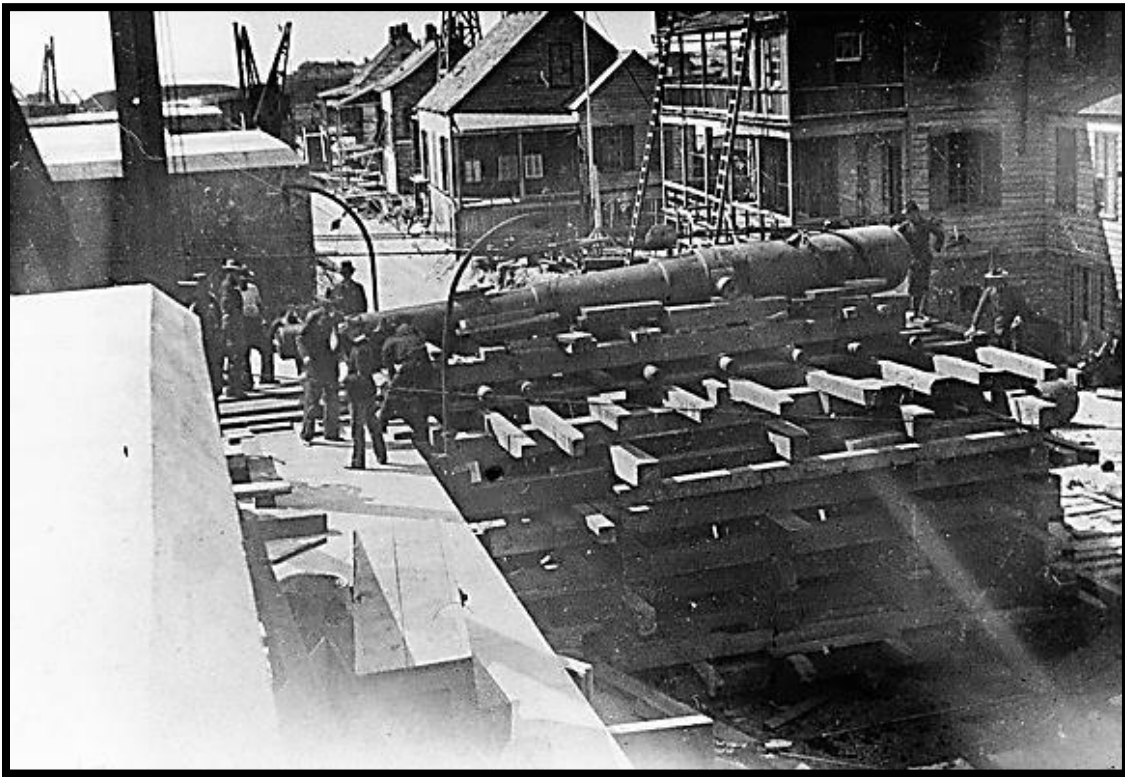
On June 6, 1896, Congress authorized funding for the construction of a battery containing four, 10-inch guns on Sullivan's Island that would be placed directly north of the existing Fort Moultrie, where a number of residential beach cottages were located. From this location, this massive concrete battery with disappearing carriage breech loading guns that protected the armament and crews from enemy fire, commanded the entrance to the harbor through direct fire instead of the plunging mortar fire from Battery Capron and Butler. It was constructed in the course of one year from March 1897 to March 1898, by two contractors, Jacob Friday and Sons and the construction firm of Sanford, Brooks, and Bonsal of Baltimore, Maryland. They worked diligently to build the over five hundred foot long, seventy foot wide and thirty-five foot high concrete, steel

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<sup>20</sup> William Gaines. "A History of Modern Coastal Defenses of Charleston, South Carolina, Part I: 1894-1939 (*The Coastal Defense Study Group Journal*, Aug. 1998) 62.



and earthen fortification under the supervision of Captain Abbot's replacement, Major Ernest Ruffner. Similar construction technology utilized in building the mortar battery was repeated for this battery, with the same power-plant structure being transported to the site and a new small gauge railroad being constructed to deliver construction supplies from government ships at the western docks. The completed four ten-inch gun battery, named for Sergeant William Jasper, 2<sup>nd</sup> South Carolina Regiment, was transferred to Battery C in April 1898 as the nation was spiraling into war with Spain.<sup>21</sup>



**Figure 3.12: 1897 U.S. Army Corp of Engineers Photograph of the installation of a ten-inch rifled gun into its disappearing carriage at Battery Jasper. The battery was named after Sergeant William Jasper, 2<sup>nd</sup> South Carolina Regiment of the Continental Army, who bravely defended the first Fort Moultrie in 1776. Image shows the civilian beach cottages still adjacent to the now constructed concrete battery. Courtesy of Fort Sumter NPS Archives.**

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<sup>21</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1897* 17, 693-699.

After the explosion of the *U.S.S. Maine*, a U.S. Navy battleship in Havana harbor on February 15, 1898, and subsequent investigation that indicated Spanish involvement in the bombing, the U.S. Congress declared war on Spain on April 25, 1898. The unpreparedness of the nation's military for large worldwide campaign requirements matched the unreadiness of coastal defenses along the eastern United States that were now threatened by the Spanish national fleet.<sup>22</sup> Anticipating the results of the *Maine* investigation, Congress had passed the National Defense Act of March 9, 1898, authorizing the construction of coastal defense batteries at all the harbors outlined in the Endicott Board recommendations. Immediately, U.S. Army Corps of Engineer officers responsible for individual harbor defenses, rushed to construct modern defenses outlined in this decade-old report.

As a result, Major Ruffner and subsequent Corps of Engineers officers in Charleston that replaced him immediately began contracting work for several new Endicott batteries to strengthen the harbor's defenses. Most of these improvements were modern batteries placed on the ramparts of Forts Sumter and Moultrie, since construction on non-government land during this period could delay these time-sensitive projects. The largest, a two, twelve-inch gun battery, constructed from May 1898 to June 1899 in the center of the Fort Sumter's parade ground, dominated the direct access to Charleston's harbor. This mixed battery of one disappearing and one barbette-carriage rifled guns, required significant removal of Civil-War era rubble to return Fort Sumter to active military status. Upon completion, the largest Endicott armament to protect Charleston's

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<sup>22</sup> Richard W. Stewart, ed. *American Military History Volume 1: The United States Army and the Forging of a Nation, 1775-1917. Second Edition* (Washington, D.C.: Center of Military History. 2005) 348-350.

Harbor was named for General Isaac Huger, a South Carolinian patriot recognized for his service in the Revolutionary War.<sup>23</sup> To assist with the defense of the harbor channel in July, 1898, the garrison placed thirty-eight electrical controlled mines, wired to a mining casemate at Fort Sumter. When the Spanish Atlantic fleet was defeated in Havana's harbor in August, all mines were removed and destroyed by the end of September.<sup>24</sup> The rapid rearming of Fort Sumter as an active part of the Charleston's defense was included as a key component of FMMR's Endicott period construction and would remain one of its largest armaments throughout FMMR's military history.

Additional funding from the National Defense Act, was used to construct three small-caliber batteries erected on the aging ramparts of Fort Moultrie. These would be responsible for protecting the channel's minefield. Located on the eastern side of the fort's seawall, two, 4.7-inch gun emplacements with an underground concrete magazine and blast apron were begun in April 1898. Completed in November 1899, the battery was named after 2<sup>nd</sup> Lieutenant Horatio S. Bingham, 2<sup>nd</sup> U.S. Cavalry.<sup>25</sup> Adjacent to its location in the center of the fort's seawall, the second battery, consisting of three, 3-inch, rapid-fire parapet guns with similar magazines and blast apron, was started in January, 1899, and completed five months later. Even with this quick construction, the nation's lack of coastal artillery resources resulted in this second battery not receiving its guns until the spring of 1901. The battery was named for 1<sup>st</sup> Lieutenant Harry L. McCorkle,

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<sup>23</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1899* (Washington D.C.: U.S. Army Corp of Engineers, 1899) 26, 863-864.

<sup>24</sup> *Ibid.* 26, 864-865.

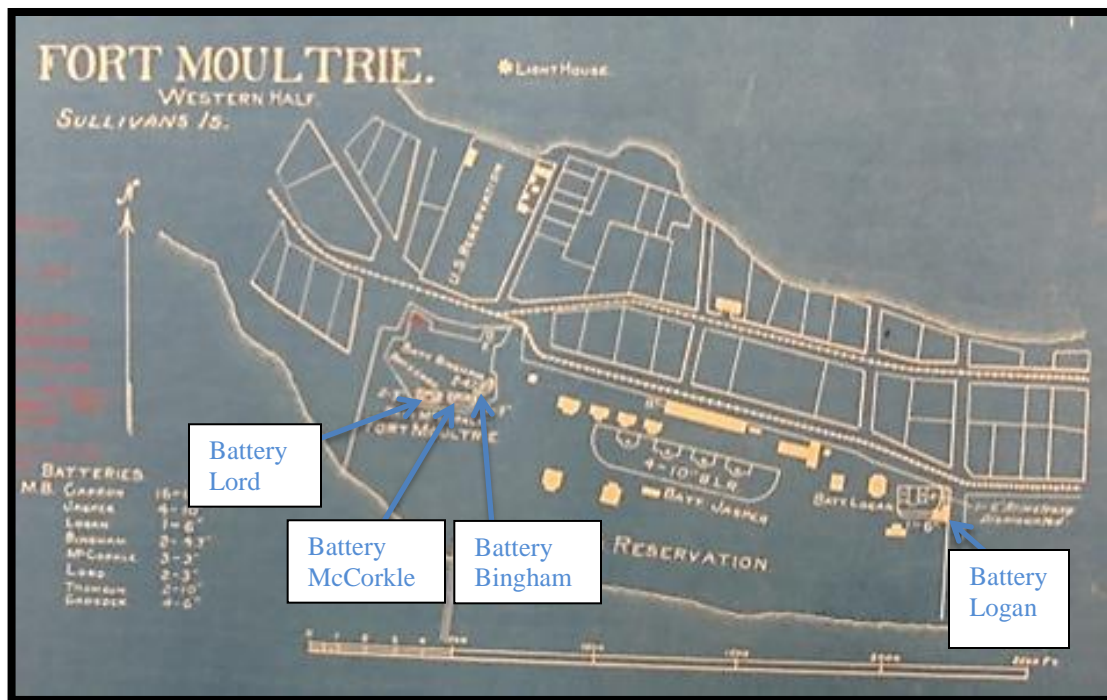
<sup>25</sup> *Report of Completed Works (Seacoast Fortifications) Gun and Mortar Batteries, HD of Charleston, SC. 1909: Battery Bingham* (Box 162,163. Textual Records from the War Department. Office of the Chief of Engineers (1818 - 09/18/1947), Record Group 77; Textual Archives Services Division, College Park, MD)

25<sup>th</sup> U.S. Infantry, and turned over to the garrison in July 1901.<sup>26</sup> The last battery constructed on the western side of the Fort Moultrie sea wall was designed to reinforce the three, rapid-fire guns of Battery McCorkle and was authorized for construction in June, 1902. The two additional, 3-inch rapid-fire gun emplacements, magazines, and blast apron were completed in December, 1903, turned over to the garrison, and named for Assistant Surgeon George E. Lord, 7<sup>th</sup> U.S. Cavalry.<sup>27</sup> The construction of three small-caliber batteries would deny enemy minesweepers from breaking through the harbors mine defenses, a key component of Charleston's future twentieth century coastal defense planning.

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<sup>26</sup> Ibid. *Battery McCorkle*

<sup>27</sup> Ibid. *Battery Lord*



**Figure 3.13: 1904 U.S. Army Corps of Engineer Map of the Western Half of FMMR showing the locations of Battery Bingham's two 4.7 inch guns, Battery McCorkle's three 3-inch guns, and Battery Lord's two 3-inch guns on the southern sea facing wall of Fort Moultrie. Battery Bingham was named after 2<sup>nd</sup> Lieutenant Horatio S. Bingham, 2<sup>nd</sup> U.S. Cavalry killed by Indians in the Dakota Territory on December 6, 1866. Battery McCorkle was named for 1<sup>st</sup> Lieutenant Harry L McCorkle, 25<sup>th</sup> U.S. Infantry who was killed at El Caney, Cuba, on July 1, 1898. Battery Lord was named for Assistant Surgeon George E. Lord, killed at the Little Big Horn, June 24, 1875. On the lower right of the map, is Battery Logan with its two 6-inch guns positioned east of Battery Jasper. Battery Logan was named for Major John A. Logan, 33<sup>rd</sup> U.S. Volunteer Infantry Regiment, awarded the Medal of Honor after being killed in action with insurgents near San Jacinto, Philippines on November 11, 1899. Courtesy of the National Archives RG 77, Drawer 64, Sheet 82-89, College Park, MD.**

The nation's quick victory during the Spanish American War and lack of combat along America's coasts did little to dampen national coastal defense construction efforts, including additional fortifications along Sullivan's Island shores. In August 1898, work began on a supplementary concrete battery placed east of Battery Jasper with two, 6-inch guns, one on a pedestal mount and another on a disappearing carriage that could protect the island's coastline from enemy amphibious landings. Similar to Battery Jasper with a two-level, reinforced- concrete design but smaller in scope, the battery was completed in

September 1899 and named for Major John A. Logan, 33<sup>rd</sup> U.S. Volunteer Infantry Regiment.<sup>28</sup> The war between Spain and the United States ended with the Paris peace treaty signed on December 10, 1898. The funds authorized by 1898 National Defense Act had caused significant changes to the landscape of Sullivan's Island, as scattered civilian beach cottages had been replaced by massive concrete fortifications. This rapid redevelopment foreshadowed that these seven modern batteries would require increases to the fort's garrison and the need for a larger supporting reservation, causing even more alterations to Sullivan's Island landscape in the next century.

After the difficulties of mobilizing forces during the Spanish American War, the United States' military underwent a period of transition and change into a more professional, modern force. At this time, Congress reorganized the U.S. Army into thirty infantry regiments, fifteen cavalry regiments, and a corps of artillery. The newly designed organization dissolved the Army's mixed heavy and light seven artillery regiments, and created an Artillery Corps with thirty batteries of field artillery and 126 companies of coastal artillery.<sup>29</sup> For the first time, the coastal artillery was identified as a distinct branch, and individual coastal artillery batteries were assigned to specific Endicott fortifications upon their construction. This reorganization affected the Fort Moultrie garrison by converting Battery C, 1<sup>st</sup> Artillery into the 3<sup>rd</sup> Coastal Artillery Company in February 1901 and assigned the 16<sup>th</sup> Coastal Artillery Company to assist with manning the harbor's batteries in October 1901.<sup>30</sup> These two units were responsible

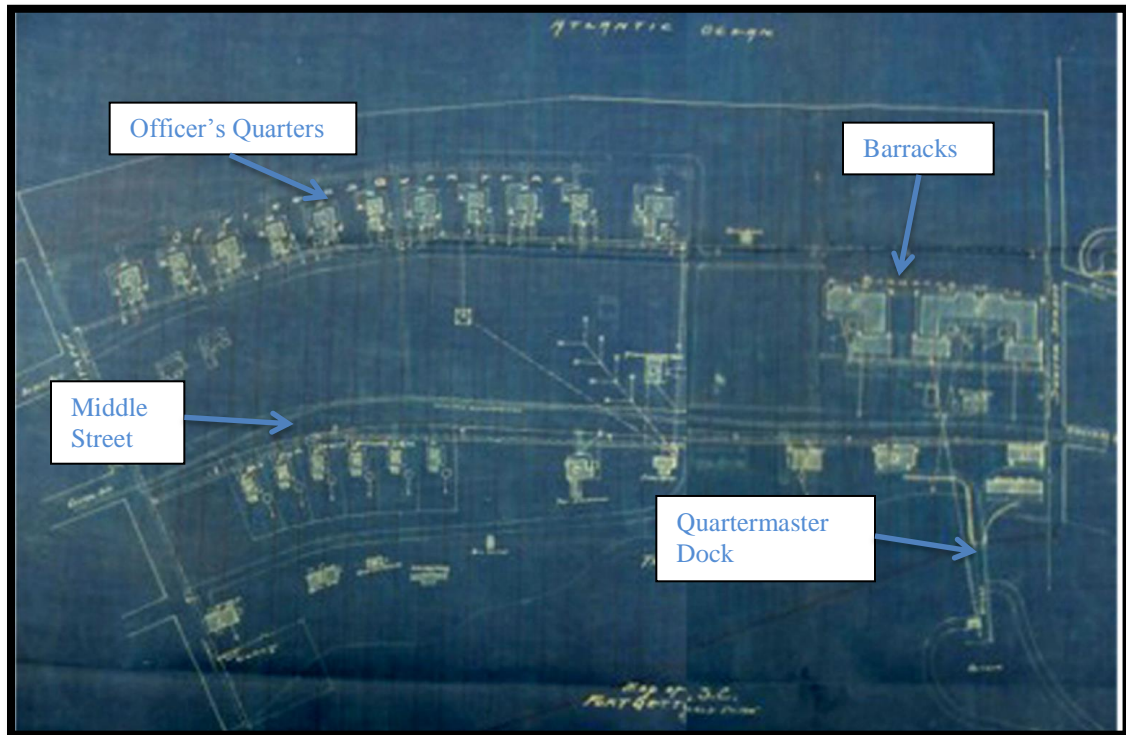
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<sup>28</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1899* 26, 876.

<sup>29</sup> Stokeley. *Constant Defender* 63.

<sup>30</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, South Carolina, Part I: 1894-1939" 73.

for manning the seven new Endicott batteries defending Charleston's harbor. With barely two hundred soldiers assigned, they were severely shorthanded and lacked appropriate support facilities to execute their mission.



**Figure 3.14: U.S. Army Quartermaster Corps 1903 Blueprint Map of Fort Getty's initial construction between Station 18(Pettigrew Street) and Station 16(Sumter Street). Shown is the location of the first barracks, officer quarters, and various supply facilities that become the future FMMR. Courtesy of the National Archives RG 94 Chief of the Quartermaster, Blueprint Group, College Park, MD.**

Recognizing the need for an updated reservation to support Charleston's Endicott fortifications and their expanding numbers of assigned troops, the U.S. Army underwent a massive building campaign to create the newly designated Fort Getty, a three- hundred acre installation north of the historic Fort Moultrie, between Station 12 and 18. As barracks and support structures were built, the garrison was increased to three companies in April, 1903, with the assignment of the 36<sup>th</sup> Company, recently returned from overseas

service in the Boxer Rebellion and Philippine Insurrection. The unpopular name, Fort Getty, of the newly created U.S. Army installation on Sullivan's Island was changed by the War Department with its name returning to Fort Moultrie soon after the arrival of 36<sup>th</sup> Company veterans in May, 1903.<sup>31</sup>

That same year, another coastal defense development occurred with the construction of two new fortifications. These were built on residential lots purchased on the beach side of Atlanticville. The first battery, consisted of two 10-inch disappearing carriage guns included numerous improvements to the Endicott design used in the construction of Battery Jasper a few years before. In order to protect this battery's mission of direct, large caliber fire against enemy ships attempting the harbor channel entrance, a second battery of four, 6-inch guns was constructed 100 meters to its south starting in 1904. Both batteries were armed and given to the fort's garrison by the summer of 1906 with the 10-inch battery being named for Brigadier General David Thomson, U.S. Volunteers who served during the Civil War and the 6-inch battery being named for Colonel James Gadsden of South Carolina who served during the War of 1812.<sup>32</sup> These two massive concrete fortifications further expanded the U.S. Army's footprint in the Atlanticville resort area, reduced the popularity of this beach resort area, and forced future civilian residential development towards the northern end of the island, away from Fort Moultrie's armament and ever-increasing number of soldiers.

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<sup>31</sup> Ibid. 74.

<sup>32</sup> *Report of Completed Works 1909: Battery Thomson/ Gadsden*





**Figure 3.15:** 1910 U.S. Army Corps of Engineer Map shows the location of Battery Thomson's two 10-inch disappearing carriage rifled guns and to its southwest Battery Gadsden's four 6-inch rifled guns in relationship to the footprints of the 19<sup>th</sup> century Atlanticville civilian beach cottages that were demolished in their construction. Courtesy of the National Archives RG 77, Drawer 64, Sheet 82-89, College Park, MD.

The need to defend new territorial acquisitions from the Spanish American War, and to update coastal defense technology, led President Theodore Roosevelt to request a review of the Endicott Board findings in 1905. Secretary of War William H. Taft organized the National Coast Defense Board, who presented their findings in a report issued a year later. The Taft Board's report findings declared that the existing Endicott batteries, and the specially trained Coastal Artillery soldiers defending them, were adequate to defend the nation's coasts, but their equipment could be updated with better

fire control systems, range finders, searchlights, and newer, larger armaments.<sup>33</sup> The Taft report's technological focus, along with the difficulties of trying to control both the field and coastal artillery branches under one Chief of Artillery, led to the U.S. Army's reorganization of the Coastal Artillery again in 1907.

The advanced training required of Coastal Artillery soldiers and the difference in battlefield techniques between field and coastal artillery resulted in the splitting into two branches and the creation of the separate Coast Artillery Corps (CAC). The new CAC was authorized by Congress to increase into one hundred and seventy active duty companies to defend new overseas harbor fortifications. National Guard units would replace shortfalls in Regular Army personnel at continental United States fortifications as a result of this increased international responsibility.<sup>34</sup> At Fort Moultrie, the 1907 reorganization resulted in five regular Army companies being assigned with personnel being split from the 16<sup>th</sup> and 36<sup>th</sup> Companies to form the 144<sup>th</sup> and 145<sup>th</sup> Companies. To support Charleston's harbor defense in the event of war, the South Carolina National Guard would be required to field five additional companies to man Coastal Artillery armaments on Sullivan's Island.<sup>35</sup> This doubling of the regular forces assigned at FMMR validated Sullivan's Island military importance, as it became the state's largest military installation.

In fifteen years, Sullivan's Island transformed its late nineteenth century beach resort identity into one of the largest coastal defense fortifications in the Southeastern

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<sup>33</sup> Kaufmann. *Fortress America* 320-323.

<sup>34</sup> Bolling W Smith & William C Gaines. "Coastal Artillery Organization: A Brief Overview" *American Seacoast Defense: A Reference Guide* (McLean, VA: CDSG Press, 2012) 420-421.

<sup>35</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, Part I:1894-1939" 74-75.

United States. This also radically altered the island's overall appearance. Locally significant, the construction of FMMR matched Charleston's renewed civic priorities to modernize itself with other large government sponsored construction campaigns. These local government improvements included the 1895 construction of the six hundred acres of Chicora Park, an Olmstead designed landscape that was later converted in 1901 into the U.S. Navy's Charleston Naval Shipyard that would dominate North Charleston. Additionally, the City of Charleston hosted the South Carolina Inter-state and West Indian Exposition in early 1902 hoping to gain prestige like the nation's other influential cities that held World Fairs during this period.<sup>36</sup> Mirroring these large local campaigns and the national City Beautiful movement, the U.S. Army designed a three hundred acre military reservation on Sullivan's Island. The post was constructed on the site of over one hundred demolished civilian-owned beach cottages and tourist-focused businesses, completely clearing the area between Moultrieville and Atlanticville. Filling this now vacant space, a professional garrison of Coastal Artillery Corps soldiers established themselves as part of the island community, effectively replacing the declining local beach tourism economy, and supporting Charleston's regional redevelopment at the end of the first decade of the twentieth century.

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<sup>36</sup> Jonathan H. Poston. *The Buildings of Charleston: A Guide to the City's Architecture* (Columbia, S.C: University of South Carolina Press, 1997) 21.



Figure 3.16: Location of Sullivan's Island Endicott Batteries and Defenses: 1896-1910. Source: author produced GIS/Photoshop basemap.

### Spatial organization

The design of the coastal artillery installation that support the nine Endicott batteries was formed from a combination of the previous Town of Moultrieville half acre lot grid pattern and the early twentieth century military policies for how a U.S. Army post should be arranged. By the beginning of the Endicott construction period of 1896, two-thirds of the island had been developed as a beachfront resort community, with a majority of lots being private small cottages and a small number of commercial tourist hotels or boarding houses. The island's sand road network had been established to service individual lots that buyers leased from the State government. This pattern of development continued towards the island's northern end, with most structures centered on their lots, addressing the main thoroughfares with additional outbuildings scattered in the rear of the lot. This established grid pattern of individual beach cottages and sandy roads, mostly constructed in the late nineteenth century, was the island's layout when in the 1890s the U.S. Army started preparation for construction of the Endicott batteries.



**Figure 3.17: 1895 Corps of Engineer Map drawn by Captain Abbot of the area that would become the mortar battery with lot owner names and arrows showing camera locations where he took photographs of each lot for his records. The photograph of Lot 243, the left center property is shown in Figure 3.18. Courtesy of the National Archives RG 77, Drawer 64, Sheet 82-89, College Park, MD.**

In August 1895, Captain Abbot was notified by his leadership of pending funds for the construction of the Batteries Capron/Butler, Thomson, Gadsden, and Jasper, and requested that he obtain the civilian lots for their construction. Taking a very methodical approach to the large project, Captain Abbot drew the maps, like the one shown in Figure 3.17, which identified each lot's owner, what structures were built on the lot and the location from where he took individual photos of required lots for his records. These forty-three photographs of the forty-nine required lots show that the properties were predominately wood family beach cottages, raised on piers and typically only one or two

stories as seen in Figure 3.18. Abbot's 1895 photographs of these future battery areas are the best images for understanding how the island's beach resort landscape of small lots and beach cottages looked before the Army started to transform the island.<sup>37</sup>



**Figure 3.18: 1895 Corps of Engineer Photograph taken by Captain Abbot showing Lot 243 of Mr. M.P. Patterson's 1 ½ story raised beach cottage with front porch on the northwest corner of Central Ave and Horry Street. Handwritten information in the top right corner identifies the appraised value of the lot as \$1,798, the owner's asked value of \$2,200, and the lot's market value of \$1,200. Courtesy of the National Archives RG 77, Drawer 193, Sheet 2-13, College Park, MD.**

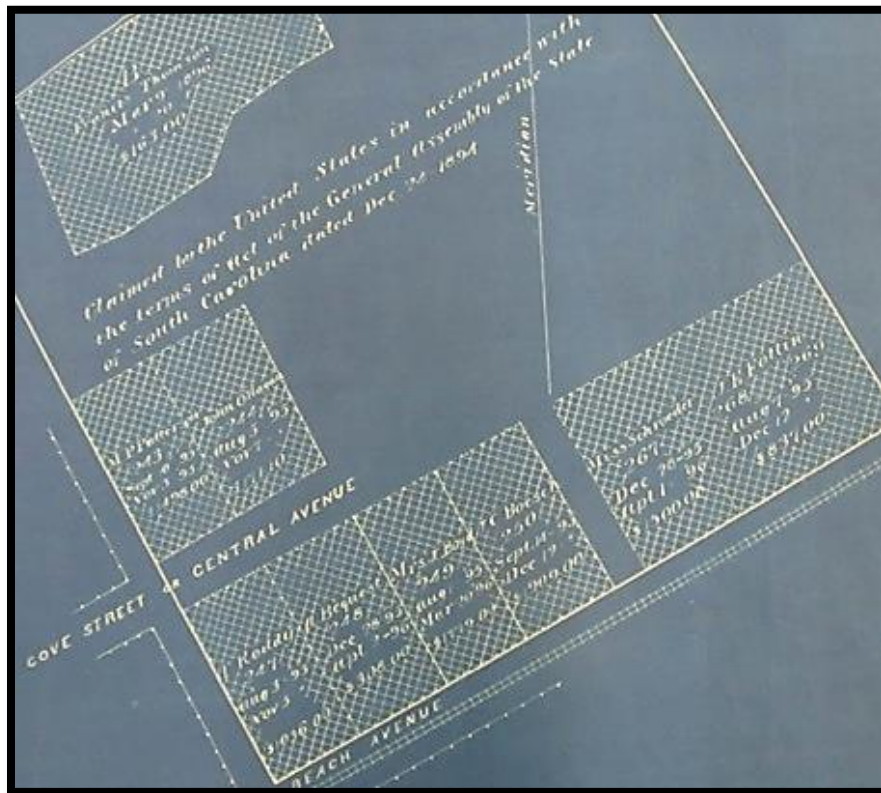
Initially focused on procuring just the lots needed for these specific battery locations across the island, Captain Abbot negotiated with individual owners to reimburse them for the cost of their property, an early application of the government's financial responsibility in eminent domain cases. Captain Abbot worked diligently for three months getting appraisals of each of the forty-nine lots' structures, negotiating with

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<sup>37</sup> *Photographs from the Headquarters Fortifications Map 1830-1920 Ft Moultrie*: Box 3, 4, 25. (Photographs and other Graphic Materials from the War Department. Office of the Chief of Engineers (1818 - 09/18/1947) Record Group 77: Records of the Office of the Chief of Engineers, 1789 – 1999. Still Picture Records Section, Special Media Archives Services Division, College Park, MD.)



individual owners for their asking price, and offering them fair market value, which was normally one-third to one-half of the owners' asking prices. Most owners understood that the State Government held their lots' leases and could easily revoke their property claims for federal national defense as soon as war was declared; so, they took the lower market prices that Captain Abbot was offering as payment for their structures built on the state leased lots. As a result of his hard work, by the end of September, 1895, Captain Abbot reported twenty-one of the lots acquired for a cost of \$31,232, including all of the lots needed for the mortar battery site as seen in Figure 3.19.<sup>38</sup>



**Figure 3.19: November 1895 Corps of Engineer Map drawn by Captain Abbot of the mortar battery lots procurement status showing all owners have agreed to selling price and have been paid. Lot 243, owned by Mr. M.P. Patterson was obtained for a price of \$1,498 agreed upon on September 10, 1895 and paid by the U.S. Army on November 5, 1895. Courtesy of the National Archives RG 77, Drawer 64, Sheet 82-89, College Park, MD.**

<sup>38</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1896* 17, 517.



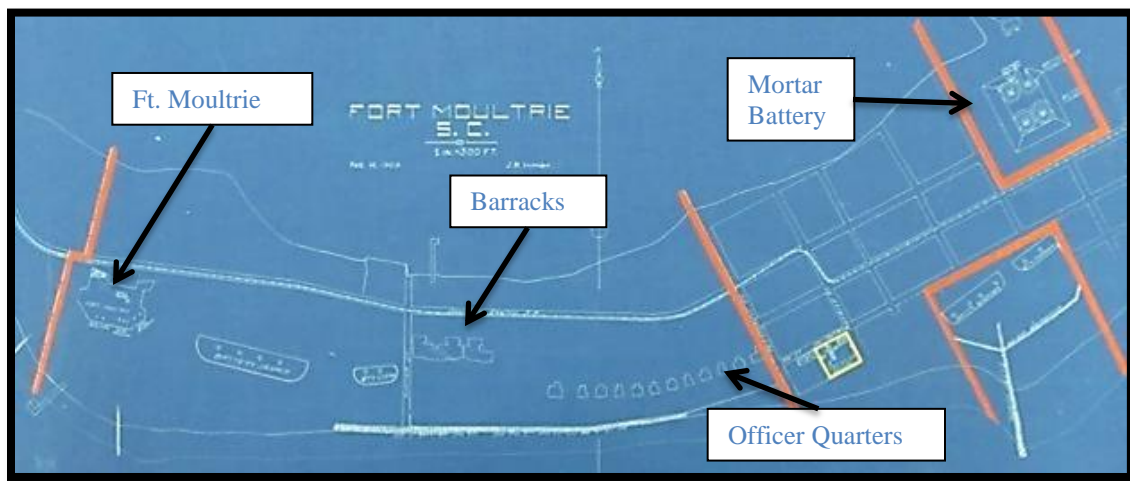
While predominately occupied with the construction of the mortar battery during 1896 and the beginning of 1897, Captain Abbot continued to acquire twenty-one of the remaining twenty-eight lots needed to complete ownership of Battery Jasper and Battery Gadsden/ Thomson's sites. The remaining seven lots had condemnation proceeding instituted in March, 1897, at the Charleston' U.S. District Courts. The seven owners were awarded verdicts in total of \$13,453 to vacate their properties quickly since it was found that the government's need for their land was in the nation's public best interest as a part of the national defense.<sup>39</sup> With the completion of acquiring the land for the proposed Endicott batteries in the spring of 1897, Captain Abbot and his replacement Corps of Engineer officers were not required to acquire further property on Sullivan's Island as the U.S. Army Quartermaster Corps assumed responsibility for acquiring future FMMR additional sections.

With the increasing number of Endicott batteries being constructed and more Coastal Artillery Companies being assigned to Fort Moultrie in the early 1900s, the base needed to expand to link its western portion around the old fort near Atlanticville. A partnership between the U.S. Army and the State of South Carolina resulted in the extensive use of eminent domain to acquire the fifty-five lots between Station 16 and Station 18 by an Act of State Legislature on February 9, 1900. This procedure was used again on March 2, 1903 to acquire the fifty-seven lots to the north of Battery Jasper between Station 13 and Station 16. These two acquisition proceedings resulted in the U.S. Army owning all the land between Fort Moultrie and the beginning of Atlanticville

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<sup>39</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1897* 17, 698-699.

around Station 18, so as to construct the new installation that would house the expanding garrison.<sup>40</sup> While the U.S. Army's Quartermasters' procurement process and the significant amounts of compensation required for these two hundred civilian occupied acres is unknown, the acquiring of one hundred sixty-one lots in the short span of eight years had enabled the quick purchase of a quarter of the island as a new Army installation.



**Figure 3.20: 1909 Corps of Engineer Map Showing Boundaries of Fort Moultrie Military Reservation lands encompassing the central part of Sullivan's Island. Courtesy of the National Archives RG 77, Drawer 64, Sheet 82-89, College Park, MD.**

After securing the land for the new installation, Fort Moultrie's Quartermaster Officer was required to design the layout of the new installation with guidance from the base commander and U.S. Army policies. In the 1860s, the Quartermaster Corps had published regulations for post layout arrangements for a four-company garrison that was

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<sup>40</sup> *Fortification Construction Plans and Military Reservation Property Surveys, compiled ca. 1895 - ca. 1914, Ft. Moultrie*: (Blueprint Group. Architectural and Engineering Drawings and Maps from the War Department. Office of the Quartermaster General. Construction and Repair Division. 1895 - 10/10/1917. Record Group 92: Records of the Office of the Quartermaster General, 1774 - 1985, Cartographic and Architectural Records Section, Special Media Archives Services Div, College Park, MD)

utilized during the Army's Western Indian campaigns. These standardized plans promoted the parade ground as the center of the installation with the overall organization of structures and land use areas clearly defined around it. With the mobilization for the Spanish American War and the increased need for housing the expanding Regular and National Guard forces of the early twentieth century, the Quartermaster Corps began promoting the use of new standardized plans for permanent structures placed on a specifically designed landscape. Mirroring this period's national prominence of the City Beautiful landscape planning ideas, the construction of these new permanent installations focused on the formalized symmetry of structures around different avenues leading to or around the post's parade grounds. By applying these design principles and modern utility conveniences to these installations, the Army promoted a professional appearance and improved the living conditions for their personnel and their families.<sup>41</sup>

During initial construction in 1902-03, FMMR's leadership applied these guidelines in the layout of the new Coastal Artillery post on the individual lots acquired in 1900 and 1903 as seen in Figure 3.21. The parade ground was placed in the center of these lots with two designed axis, one about 800 meters paralleling and adjacent to the front beach, and the other intersecting the northern part of the major axis and running 400 meters across the island to the cove side of the island. The highest point overlooking the parade ground located on its southeastern corner, close to the ocean and the island's more modern development of Atlanticville, was selected for the post commander's and his

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<sup>41</sup> U.S. Army Environmental Center. *Context Study of the United States Quartermaster General Standardized Plans 1866-1942* (Aberdeen, MD: Environmental Compliance Division, 1997) 35-40.

officers' quarters. Directly behind the post commander's living quarters were the Post Headquarters building arranged around one of the installation's most important individual features, the flagpole at the northern end of the shorter cross-island axis. Across the parade field from these important structures were the garrison's large permanent barracks oriented towards the long ceremonial parade ground and the front beach. To the rear of these structures and along the less valuable cove side of the island the installation's support and services components were arranged around the Quartermaster's docks. Additional land use areas for non-commissioned officer's housing filled in the remaining open spaces of the 1900- and 1903- acquired lands and, followed the post's other structures by orienting their primary facades along pre-existing island roads. By establishing the layout of FMMR around the formalized symmetry of the parade grounds according to military hierarchy of importance, the post's quartermasters followed the Army's guidance to develop a well-organized and logically planned post that would be the basis for its significant expansion over the next few decades of the twentieth century.

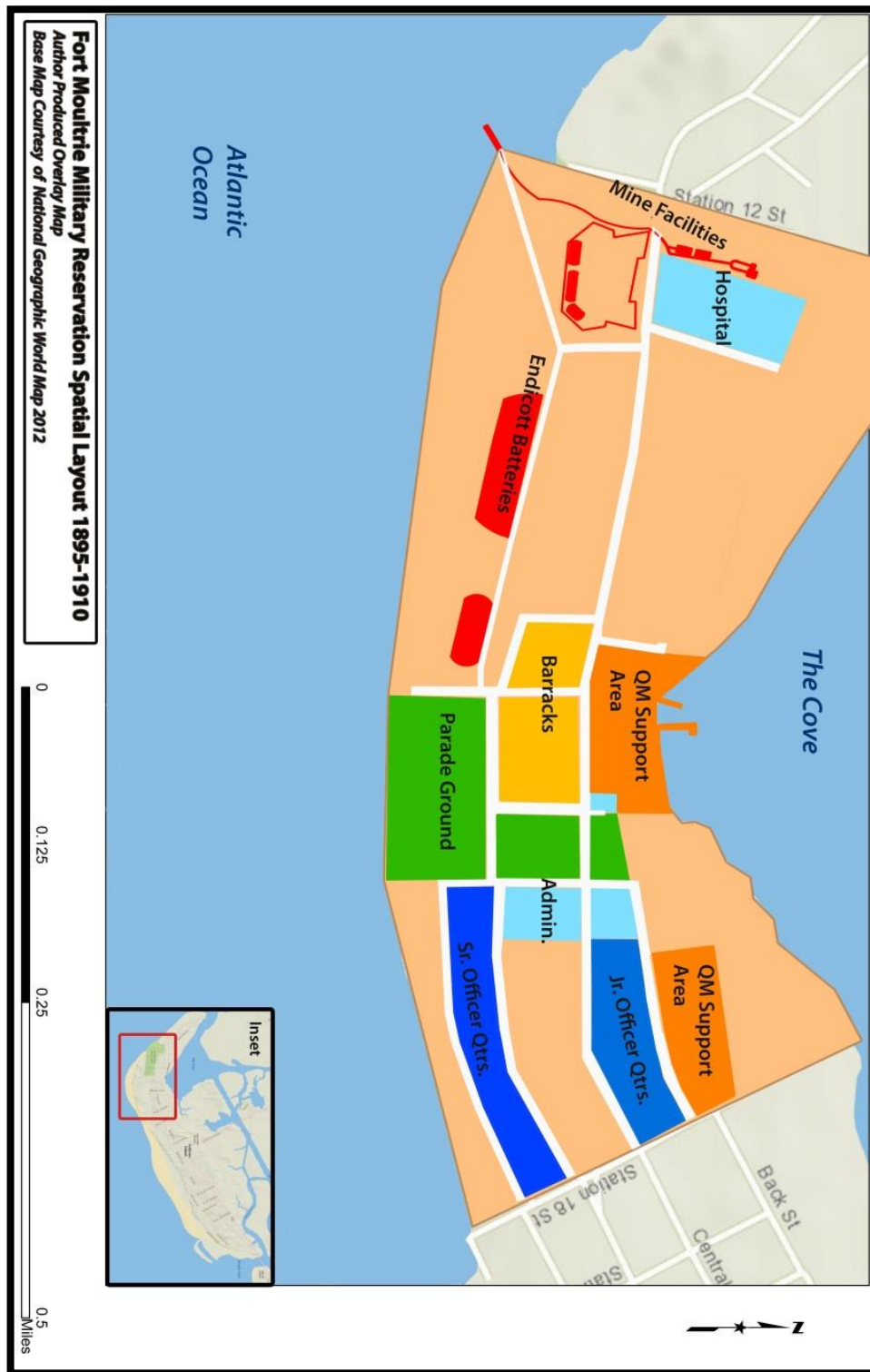


Figure 3.21: Spatial Layout of land use areas after FMMR initial construction 1902-1910. Source: author produced GIS/Photoshop basemap.

### Physical Setting:

The early twentieth century FMMR expansion continued the long successful cooperative relationships between the island's U.S. Army garrison and its civilian inhabitants. Even though the two hundred acres covered the entire island between Station 12 and Station 18, civilians still needed to be able to cross from its western point of Moultrieville to its central area of Atlanticville and continue north onto Isle of Palms as needed. One of the main transportation sources on the island was the Charleston and Seashore Railroad trolley line that had been constructed in the 1890s to link Sullivan's Island to both Mount Pleasant and Isle of Palms. Its electric trolley passenger and cargo cars with overhead power lines ran through the center of the installation along Middle Street on a regular timetable carrying civilians who would stare at the soldiers executing their duties. Partially because of this daily interaction between the military and civilian island occupants that had existed on the island from the eighteenth century, the Post Quartermaster during this initial construction period did not erect any permanent boundaries to restrict civilians, but focused on erecting new buildings for the garrison. Because of the island's isolated location and exposure to the ocean, however, significant efforts were undertaken to build barriers to protect the base from environmental impacts.

For its entire history as a barrier sea island, Sullivan's Island has been affected by the deposition of silt from the confluence of the Ashley and Cooper Rivers, the complicated eddies and currents within the harbor, and the erosion caused by the sudden, devastating impacts of hurricanes. These periodic storms could cause storm surge flooding, high damaging winds, and significant erosional effects to the island. Hurricanes

throughout the 1790s and again in 1804 had destroyed the first and second Fort Moultrie constructed on the island's southern coast. As a result, U.S. Army Corps of Engineer officers tried to protect new fortifications from these impacts. One of the first attempts was completed in the early 1830s, when small palmetto log cribs were constructed parallel to the brick rampart walls of the third Fort Moultrie in efforts to shore up the beach that had been eroding in front of the walls. Taking this improvement one step forward in the 1840s was Captain Alexander Bowman, U.S. Army Corps of Engineers, who understood that the north-south drift of the island's near shore currents called littoral drift was reducing the size of the island as it pulled sand down the coast. Captain Bowman constructed a stone jetty near the fort that extended 1,500 feet seaward, perpendicular to the beach towards the center of the harbor channel. This successfully reversed the island's erosion and caused the island to accrue land along its oceanfront at a significant rate during the nineteenth century.<sup>42</sup>

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<sup>42</sup> Suzannah Smith Miles. *Writings of the Island: Sullivan's Island and Isle of Palms* (Charleston: The History Press, 2004) 103-105; Jack Leland. "Early Efforts at Erosion Control Found" (*Charleston Evening Post*. February 16, 1983)

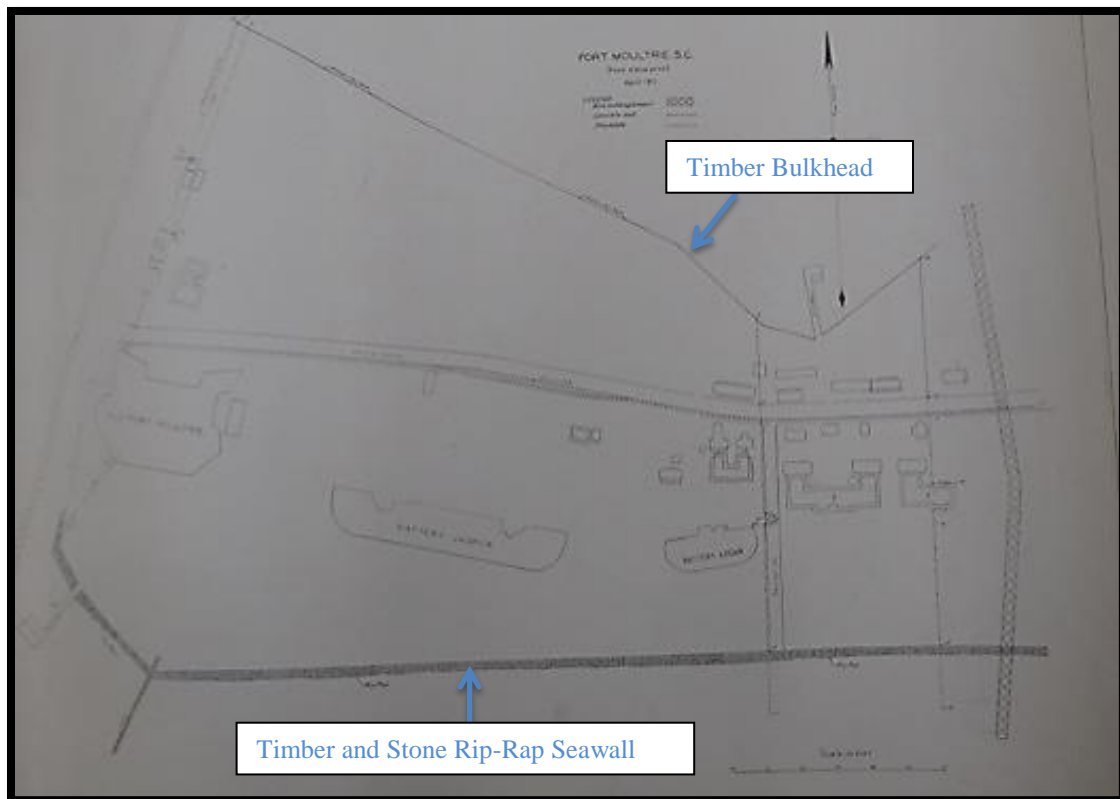


**Figure 3.22: 1980s Photograph of the 1830s Cribbage constructed by the U.S. Army Corp of Engineers to protect Fort Moultrie from erosion. Timber cribbage has been uncovered by tides at Station 12 over the years. Courtesy of Fort Sumter NPS Archives.**

While these early efforts had succeeded in protecting the seacoast of Sullivan's Island from disappearing before the construction of FMMR, the significant accumulation of silt in the harbor and its approaches had made Charleston's harbor dangerous to navigate after the Civil War. From the 1870s until complete in 1898, the United States Corps of Engineers, with Captain Abbot in charge for the last ten years, constructed massive stone jetties to create a protected channel entrance to the harbor. The stone jetties were constructed of layers of log raft mattresses filled with stone that were sunk in two long lines to create the channel and prevent siltation from impacting ship access to the harbor. The northern side of the jetties connected to Sullivan's Island in the vicinity of the Atlanticville and Battery Gadsden, further protected the southern coast of Sullivan



Island and caused significant accrual of additional land in this area throughout the twentieth century.<sup>43</sup> With the knowledge and experience of understanding the environmental impacts that faced Charleston's harbor and islands surrounding it from his ten years of jetty work, Captain Abbot included additional measures to protect the Endicott fortifications he was responsible for constructing on Sullivan's Island.



**Figure 3.23: 1911 U.S. Army Corps of Engineers Map of Western Part of FMMR showing the Granite Rip-Rap and Timber Seawall along the seashore. Courtesy of National Archives RG 77-F Chief of the Engineers Box 3-4, College Park, MD.**

Before beginning construction on Battery Jasper in 1897, Captain Abbot supervised the construction of four hundred and forty linear feet of eight-foot above-grade timber seawalls. Located on the seaside of the existing beach dunes, this substantial

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<sup>43</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1887* (Washington D.C.: U.S. Army Corp of Engineers, 1887) 1127-1137.

barricade was protected from damage by an eight-foot wide large irregular shaped stone boulder riprap wall between the seawall and ocean. This significant system of protective beach barriers along with the jetties provided the most complex environmental control measures in the Charleston area.<sup>44</sup> When Battery Logan and the main part of the installation between Station 16 and 18 was constructed northeast of Battery Jasper in the early 1900s, Captain Abbot's successful measures were continued with over three thousand feet of additional timber seawall and stone boulder rip rap being constructed during the first decade of the twentieth century. Additionally, in front of Battery Gadsden and Thomson, a separate thousand feet of timber seawall and stone boulder wall was built to protect these two batteries from storm surges.<sup>45</sup> By the end of the initial construction period of FMMR, the post's boundaries ensured protection of the new Endicott harbor fortifications and supporting structures from natural destruction while a friendly relationship with the island residents required little formal boundaries between the military and civilian parts of the island.

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<sup>44</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1897* 696.

<sup>45</sup> *Fortification Construction Plans and Military Reservation Property Surveys, compiled ca. 1895 - ca. 1914, Ft. Moultrie*: Blueprint Group. (National Archives, Record Group 92, Box 360, College Park, MD)

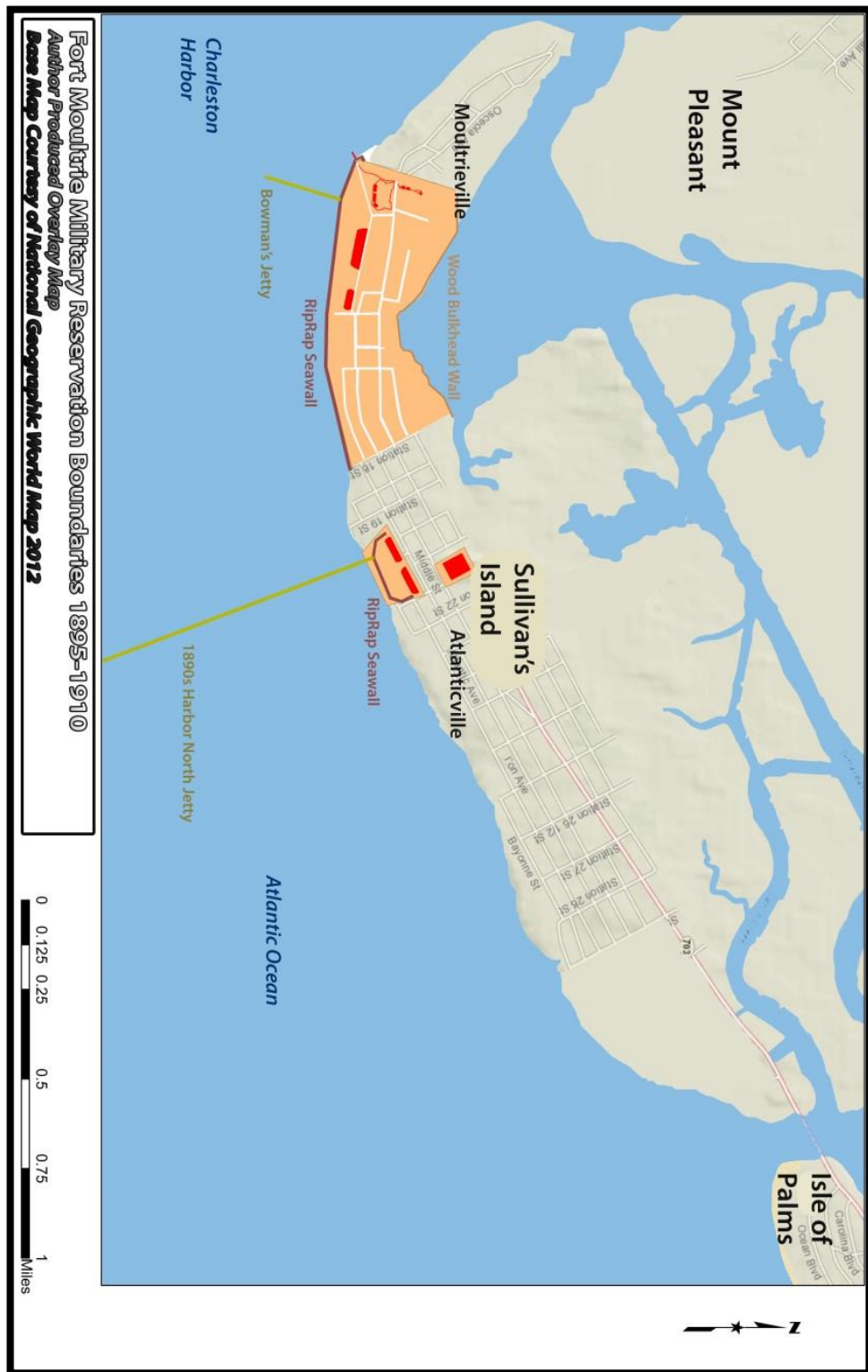
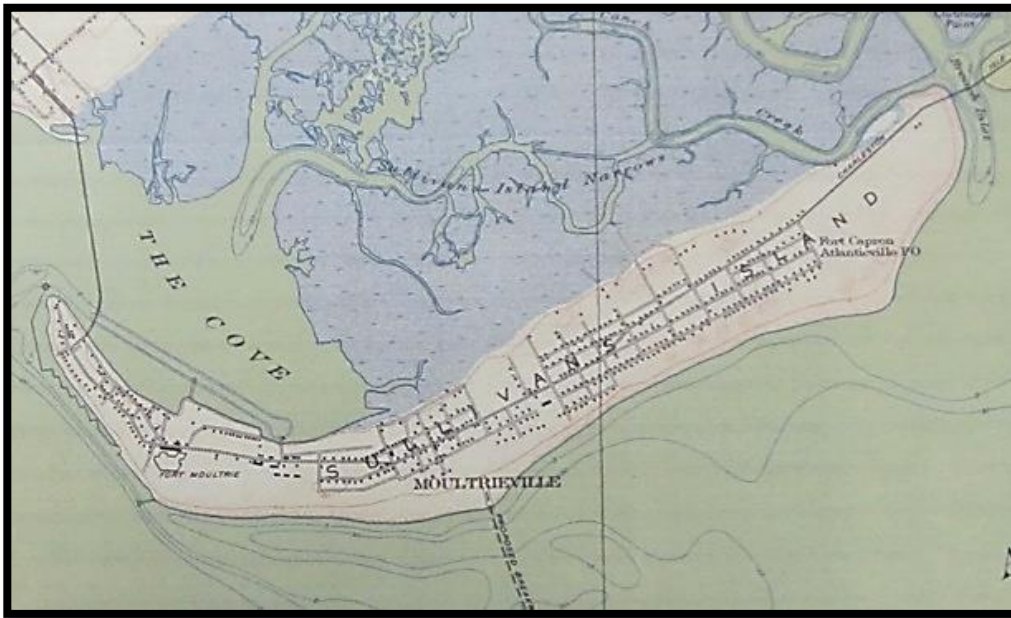


Figure 3.24: FMMR Boundaries and protective measures 1895-1910. Source: author produced GIS/Photoshop basemap.

### Circulation routes:

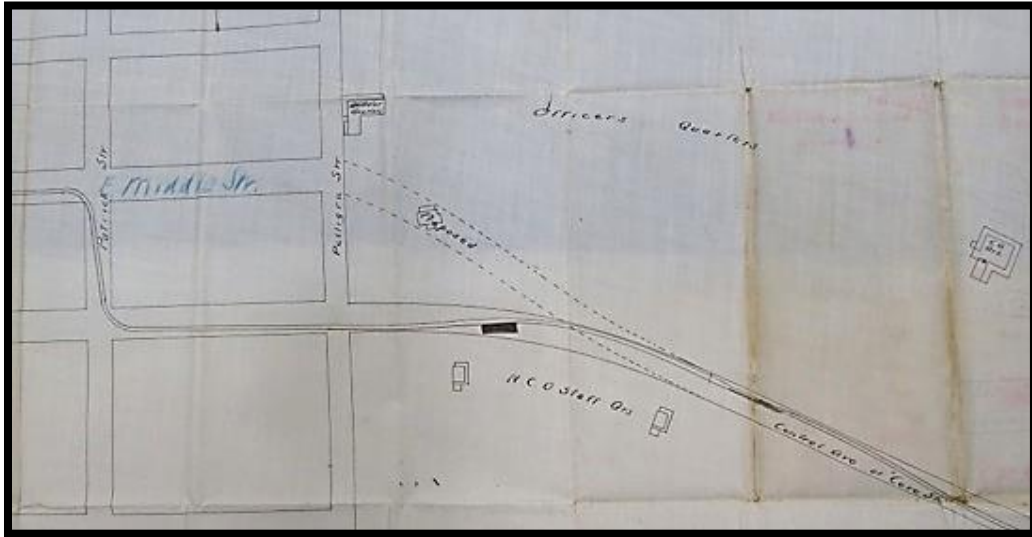
As the first Endicott batteries were being constructed on Sullivan's Island, a major transportation development would forever change the island's landscape and provide connections to its neighbors. In 1898, the Charleston and Seashore Railroad Company was founded to improve the Sullivan's Island mule-pulled trolley that had been operating since the 1870s. It constructed an electric trolley line that ran from Mount Pleasant, across the cove marshlands, up the lengthen of Sullivan's Island, until ending at the northern end of Isle of Palms, as seen in Figure 3.25.



**Figure 3.25: 1918 USGS Map of Sullivan Island showing the route of the Charleston and Seashore Railroad from Mount Pleasant across the Cove Trolley Bridge through Sullivan Island to the Breach Inlet Bridge and Isle of Palms. Courtesy of Fort Sumter NPS Archives.**

The new trolley line operated on a regular schedule, stopping at island cross street intersections that soon became known by their trolley station number. The railroad provided the first permanent bridges connecting Sullivan's Island to Mount Pleasant and Isle of Palms, making it significantly easier to travel between them. As the area's most

popular public transportation system, FMMR's early leaders recognized the importance of allowing the electric trolley access across the new post.<sup>46</sup> However, on the northern end of the installation where the existing trolley line turned off Central Street at Station 19 and turned again on to Middle Street, the post's new layout created a distorted entrance to the military installation. In order to link Atlanticville's main thoroughfare of Middle Street to their desired location of the post's northern main entrance, the U.S. Army paid for the construction of a replacement road with trolley lines that branched off at Central Avenue before Station 18 and linked with Atlanticville's Middle Avenue at the fort's boundary as shown in Figure 3.26.<sup>47</sup> Because of this change, this triangle intersection created a transportation hub around the fort's northern entrance and made an easier route for the trolley to traverse from the fort to Atlanticville's tourist area.



**Figure 3.26: 1906 U.S. Army Quartermaster Corps Map of Proposed Changes to Central and Middle Streets for FMMR new northern entrance and existing trolley routes. Courtesy of National Archives RG 92 Chief of the Quartermasters Box 360- Blueprint Group, College Park, MD.**

<sup>46</sup> Gadsden Cultural Center. *Images of America: Sullivan's Island* (Charleston: Arcadia Publishing, 2004) 9-11.

<sup>47</sup> *Fortification Construction Plans and Military Reservation Property Surveys, compiled ca. 1895 - ca. 1914, Ft. Moultrie*: Blueprint Group. (National Archives, Record Group 92, Box 360, College Park, MD)

As the island's twentieth century population started to increase with the expanding fort's garrison and with new residents populating the island's northern end, the transportation requirements greatly increased. In addition to the private Charleston and Seashore electric trolley and Moultrieville's ferry boat docks, FMMR builders recognized the need to build their own docks and rail lines to support the new installation. The first military transportation project constructed was the Engineer Dock placed on the oceanside of Fort Moultrie near Station 12, for the employment of the harbor's mine defenses. Funded from the National Defense Act in the late 1890s, the dock was connected to the mine defense buildings located on the western side of old Fort's parade grounds by a small-gauge railroad line, which was used to move explosive materials from the torpedo storerooms to the dock.<sup>48</sup>



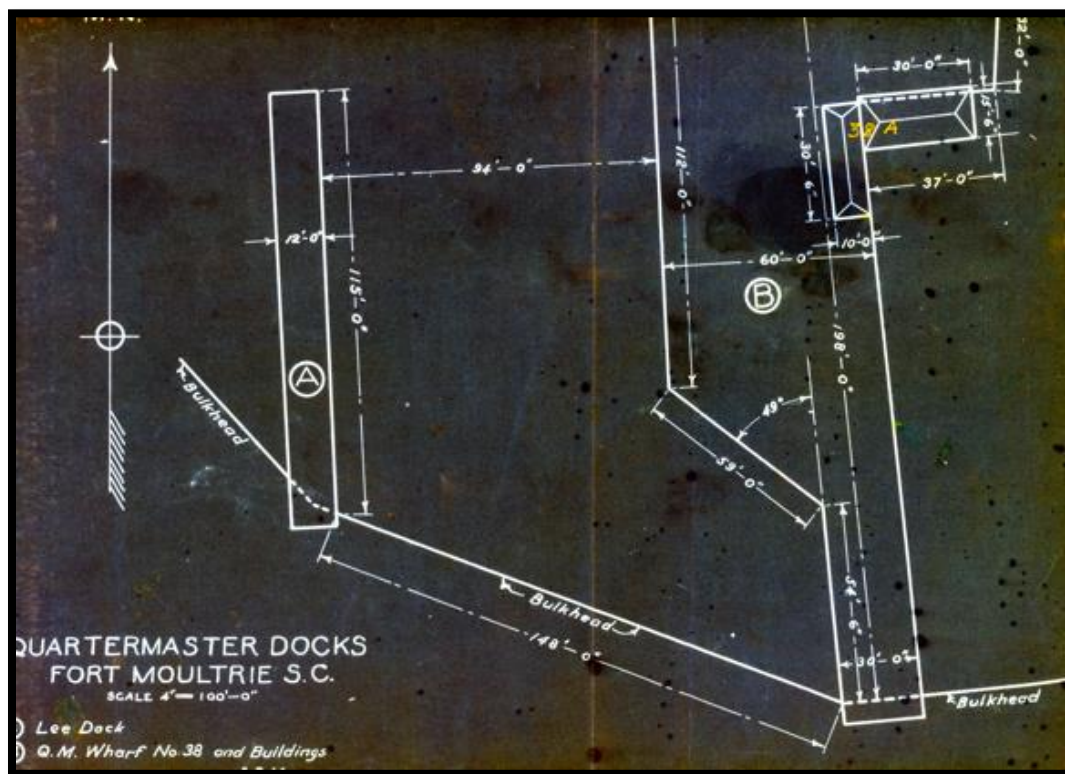
**Figure 3.27: 1900s Photograph of Engineer Wharf at Fort Moultrie, SC located on the ocean side of Station 12. Courtesy of Fort Sumter NPS Archives.**

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<sup>48</sup> *Photographs from the Headquarters Fortifications Map 1830-1920 Ft Moultrie* (National Archives, Record Group 77, Box 3,4,25, College Park, MD)



The Engineer dock's other use was a supply transfer point between Charleston's government docks, Fort Sumter, and the battery construction areas on Sullivan's Island until FMMR's Cove Quartermaster docks were constructed in 1902. These two docks provided a better transfer point for all of the supplies being shipped for the 1902-1903 construction campaign than the small docks located near old Fort Moultrie. Because of the dock's importance, all of the Quartermasters required support facilities were built adjacent to them. To connect these buildings to the docks and to make the unloading of vessels easier, small-gauge railroads were laid running from the docks to each of the Quartermaster's storage buildings in the back cove area.<sup>49</sup>



**Figure 3.28: 1902 U.S. Army Corps of Engineers Blueprints for the Quartermaster Docks constructed on the cove side of Station 16. Courtesy of National Archives RG 77, Chief of Engineers, Box 162, College Park, MD.**

<sup>49</sup> Ibid.

Because of the shallow depth of the cove area around the Quartermaster Docks, the Quartermaster Corps required that most of the base supplies and personnel traveling to Sullivan's Island from outside the Charleston area needed to be first offloaded at Charleston's government docks and then be transferred to shallower draft boats and barges that could maneuver in the cove channel. In order to fulfill the constant requirements for shipping between these two points, the Quartermaster Corps maintained and operated a number of small vessels like the *U.S.S. Sprig Carroll*, shown in Figure 3.29. These small, soldier-operated vessels were the post's primary transportation for personnel traveling to and from Charleston during most of the installation's history.<sup>50</sup>



**Figure 3.29: 1911 Photograph of FMMR Quartermaster Wharf with *U.S.S. Sprig Carroll*, a Charleston based U.S. Army support ship assigned from the 1900s to after World War II. Courtesy of Fort Sumter NPS Archives.**

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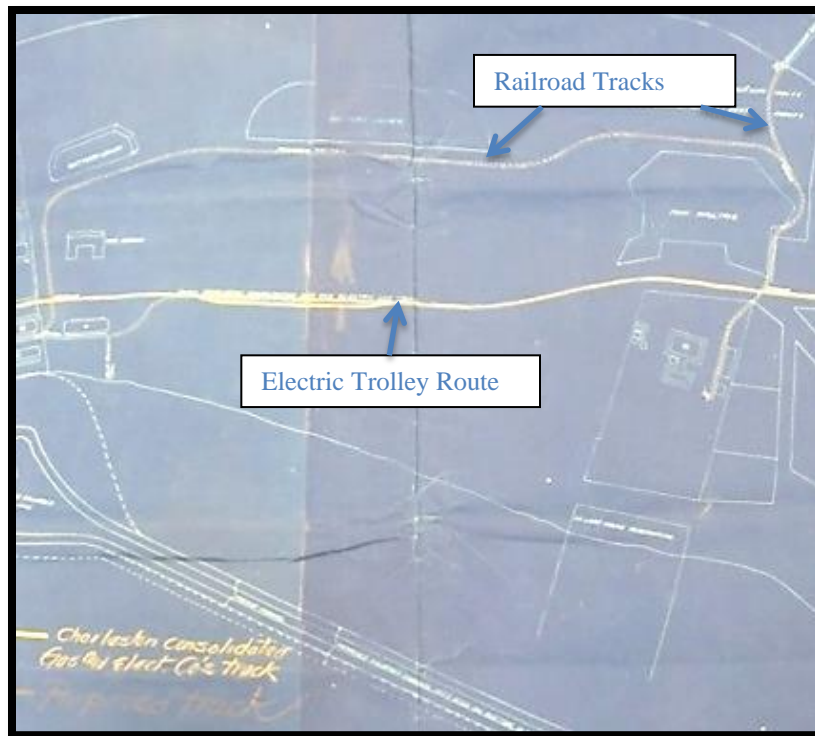
<sup>50</sup> *Historic Photograph Files: Ft Moultrie/ Sullivan Island* (Fort Sumter National Park, National Park Service, Fort Moultrie Visitor Center, accessed and scanned Summer 2012)



After completing these transportation improvements during the early construction phases, the post's leadership tried to improve on the ability of personnel and supplies to move around the internal areas of the new installation. The first suggestion was the addition of small-gauged railroads linked into the existing railroads around the Engineer and Quartermaster docks. The primary missions of these additional lines would be to quickly supply the base's armament with their required ammunition or to transport heavy machinery around the post as shown in Figure 3.30.<sup>51</sup> These small gauge railroad systems were prevalent at other similar Endicott sites being constructed at the time but were not approved by the FMMR leadership because of the expense and desire not to disrupt Sullivan's Island's existing road and trolley network. Instead of the proposed railroad system, a network of large sidewalks was approved to link the base's crucial areas.

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<sup>51</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island* (Fort Sumter National Park, National Park Service, Fort Moultrie Visitor Center, accessed and scanned Summer 2012)

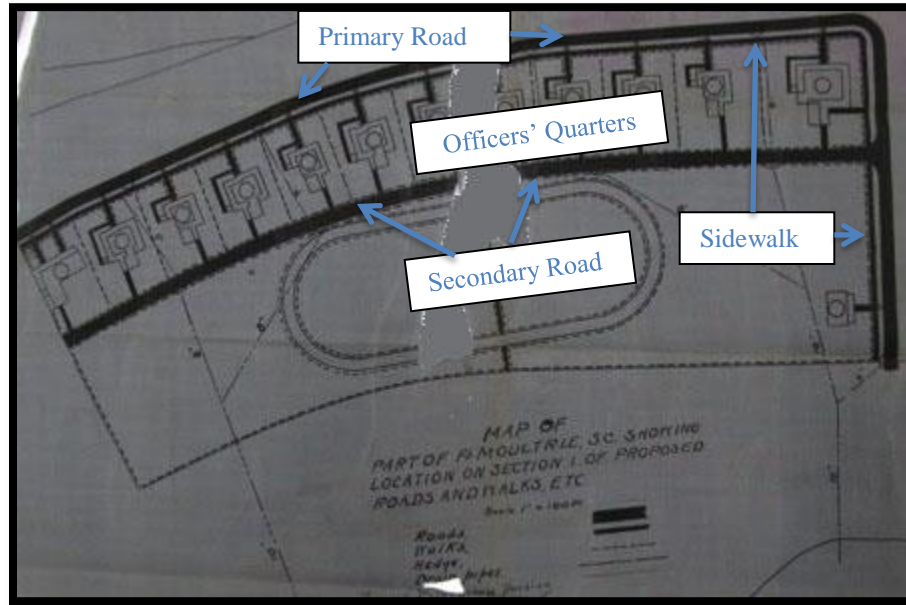


**Figure 3.30: 1905 U.S. Army Quartermaster Corps Blueprints of Locations for Proposed Railroad Tracks on the western side of FMMR. These lines would connect Batteries Jasper and Logan with the Quartermaster and Engineer Docks for easier ordnance resupply if constructed. Courtesy of National Archives RG 92 Chief of the Quartermasters Box 360- Blueprint Group, College Park, MD.**

In 1906, the U.S. Army gave approval to Lt. Bunker, Post Quartermaster, for the construction of sidewalks according to the plans shown in Figure 3.31 that would allow personnel and small wagonloads of supplies to quickly move to the fort's batteries. When construction on the sidewalks began in 1907, the leadership noticed that the adjacent sandy unimproved roadways needed to be hardened for the post's transportation network to be effective. As a result of these findings and the increasing use of motorized trucks for military resupply, the construction of new cement gravel roadways with underground terracotta sewer drains was included in the base's sidewalk plan.<sup>52</sup> This

<sup>52</sup>*Fortification Construction Plans and Military Reservation Property Surveys, compiled ca. 1895 - ca. 1914, Ft. Moultrie: Blueprint Group. (National Archives, Record Group 92, Box 360, College Park, MD)*

roadway construction project resulted in the first cement roadways being constructed on the island and provided sidewalks for pedestrians to safely traverse the post.



**Figure 3.31: 1907 U.S. Army Quartermaster Corps Map of new roads and sidewalks constructed around FMMR senior officer quarters and parade field. Courtesy of National Archives RG 92 Chief of the Quartermasters Box 360- Blueprint Group, College Park, MD.**

Continuing to employ City Beautiful landscape planning ideas in the base layout, certain key streets like Middle, Ion Avenues and Station 17 were designed as broad vista-producing avenues for purely aesthetic reasons. These wider streets were further identified as important to the fort's landscape by buildings' being oriented to face them and native trees being planted between their sidewalks and curbs. The less significant service roadways were tucked behind structures and were about half the size of the key roadways. By the end of the first decade in the twentieth century, the hierarchy of the post's new transportation system helped to reinforce the post's division of land use areas and showcased the technological improvements changing the island's landscape by the permanent building campaigns of the Endicott era of coastal fortifications.



Figure 3.32: FMMR Transportation Networks 1895-1910. Source: author produced GIS/Photoshop basemap.

Post utilities:



**Figure 3.33: 1907 U.S. Army Quartermaster Corps Blueprint Map of FMMR's eastern end showing differences between primary and secondary roads due to widths and building orientation. Courtesy of National Archives RG 92 Box 360- Blueprint Group, College Park, MD.**

Following the U.S. Army's twentieth century policies of improving the living and working conditions of its soldiers, modern conveniences including heating, electricity, water, and sewage was included in FMMR's construction. These modern systems had previously not existed at such a large scale on Sullivan's Island. With the Army's installation of these systems and their supporting infrastructure, other civilian utility improvements quickly followed for the civilian residents of the island. One method used by all island residents, both military and civilian, during this time, was the coal fireplace or furnace used to heat their homes and cooking stoves. To supply the living and



working areas of FMMR, Post Quartermaster established in 1903 a two thousand ton coal yard adjacent to the Quartermaster Docks that would be responsible for supplying the post heating over the next forty years. One of the Quartermaster Department's duties over these years was the delivery of the coal ration to each individual building's coal bin that was placed under and towards the rear of structures to be close to the secondary roads used in its delivery. Living quarters were designed to have a coal furnace that would supply heat via separate room registers, while working and service areas would have coal stoves for radiant heat. With a short annual winter period along the South Carolina coast, the post's coal heating and cooking appliances were slowly replaced with new electric ones over the first half of the twentieth century.<sup>53</sup>



**Figure 3.34: 1939 Photograph of FMMR Coal Yard adjacent to the Quartermaster Docks. Courtesy of the National Archives RG 77 Historic Building Records Entry 393 Box 162, College Park, MD.**

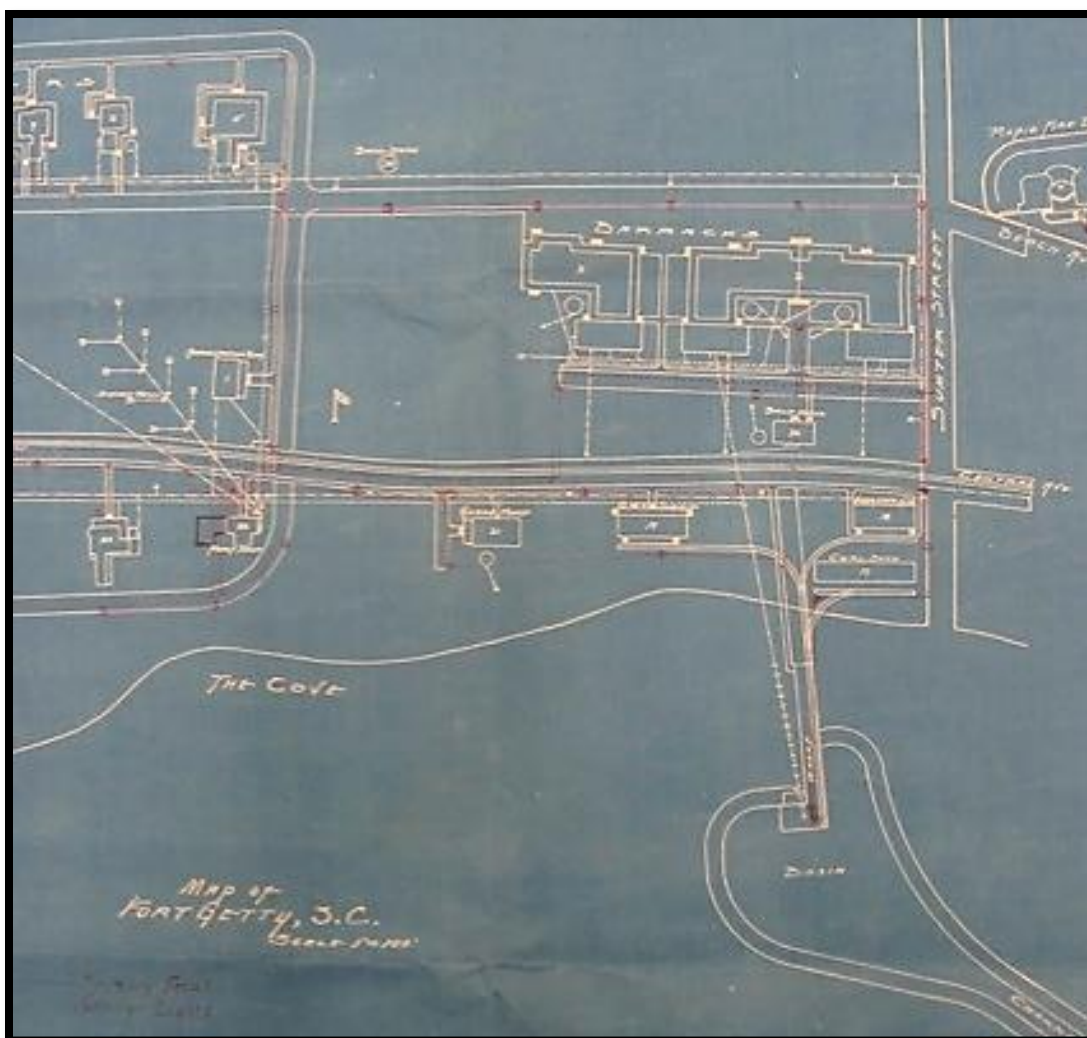
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<sup>53</sup> *Historic Building Record Cards for Fort Moultrie*: Box 162, Building 83. (Textual Records from the War Department. Office of the Chief of Engineers. (1818 - 09/18/1947), Record Group 77; Archives II Reference Section (Military), Textual Archives Services Division, College Park, MD)

With the construction of the Endicott batteries and the Charleston and Seashore Trolley line in the 1890s, electricity became an important modern utility needed to power lights, machinery, and transportation systems across the island. On FMMR, tactical electricity was supplied to individual batteries with small individual generators located inside the battery's concrete walls or separate powerhouse structures. For the rest of the installation's electric needs, generators located at the post's pump house produced the power that was distributed by above ground electric lines run to key structures. Initially, electricity was used to power exterior street lights and a select number of individual important structures' interior lighting like the Post Headquarters, Hospital, and Senior Officer quarters as seen in Figure 3.34. As popularity for this new utility grew, above ground electric lines were attached to all of FMMR structures and electric powered streetlamps were installed along all roadways by 1910.<sup>54</sup>

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<sup>54</sup> *Fortification Construction Plans and Military Reservation Property Surveys, compiled ca. 1895 - ca. 1914, Ft. Moultrie*: Blueprint Group. (National Archives, Record Group 92, Box 360, College Park, MD)



**Figure 35: 1903 U.S. Army Quartermaster Corps Blueprint Map of central part of Fort Getty(FMMR) Electrical Light Network shown in red markings. The map shows the importance of lighting along streets and at key structures around the post. Courtesy of National Archives RG 92 Chief of the Quartermasters Box 360- Blueprint Group, College Park, MD.**

The most complex utility system developed for FMMR during this initial construction period was the post's water and sewage infrastructure. The importance of providing the modern conveyance of running water and flush toilets in order to provide a sanitary environment for its soldiers was illustrated as the water supply structures were the first buildings built by the Post Quartermasters. The entire system was centered around a 200,000-gallon capacity belowground reservoir and a seventy-foot high 60,000-



gallon capacity water tank on a steel trestle located behind the Post Headquarters' building. In order to provide the force to push the water from the reservoir into the water tank that gravity fed all of FMMR's structures with running water, a 1,600 square foot pump house was constructed next to the reservoir. Due to the limited well-water capacity on the island, the Post Quartermasters developed a system of individual structure cisterns that captured rainwater off their roofs in order to provide a reserve water source for the post. Each of the individual cisterns was connected to the main reservoir by additional cast iron piping that helped to maintain the post's water levels. Individual structure's sewer lines and roadway storm water drains were combined at numerous locations into terracotta sewer pipes that emptied into the back Cove as shown in Figure 3.35. This complex water and sewage system provided enough clean water and removal of waste for the post's garrison that, in the event of war, it could have supported over 3,000 personnel.<sup>55</sup> Without the post's combination of new coal heating, electric power and lights, and running water utilities, FMMR garrison's peaceful training and wartime mission of defending Charleston's harbor would not have been possible.

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<sup>55</sup> Ibid.



**Figure 3.36: 1908 U.S. Army Quartermaster Corps FM MR Map showing the post's water and sewage system. While the cast iron water pipes ran adjacent to roadways, the post's clay sewage lines ran across the post as needed before emptying into the Cove. Courtesy of the National Archives RG 92 Chief of the Quartermasters Box 360- Blueprint Group, College Park, MD.**

Structures:

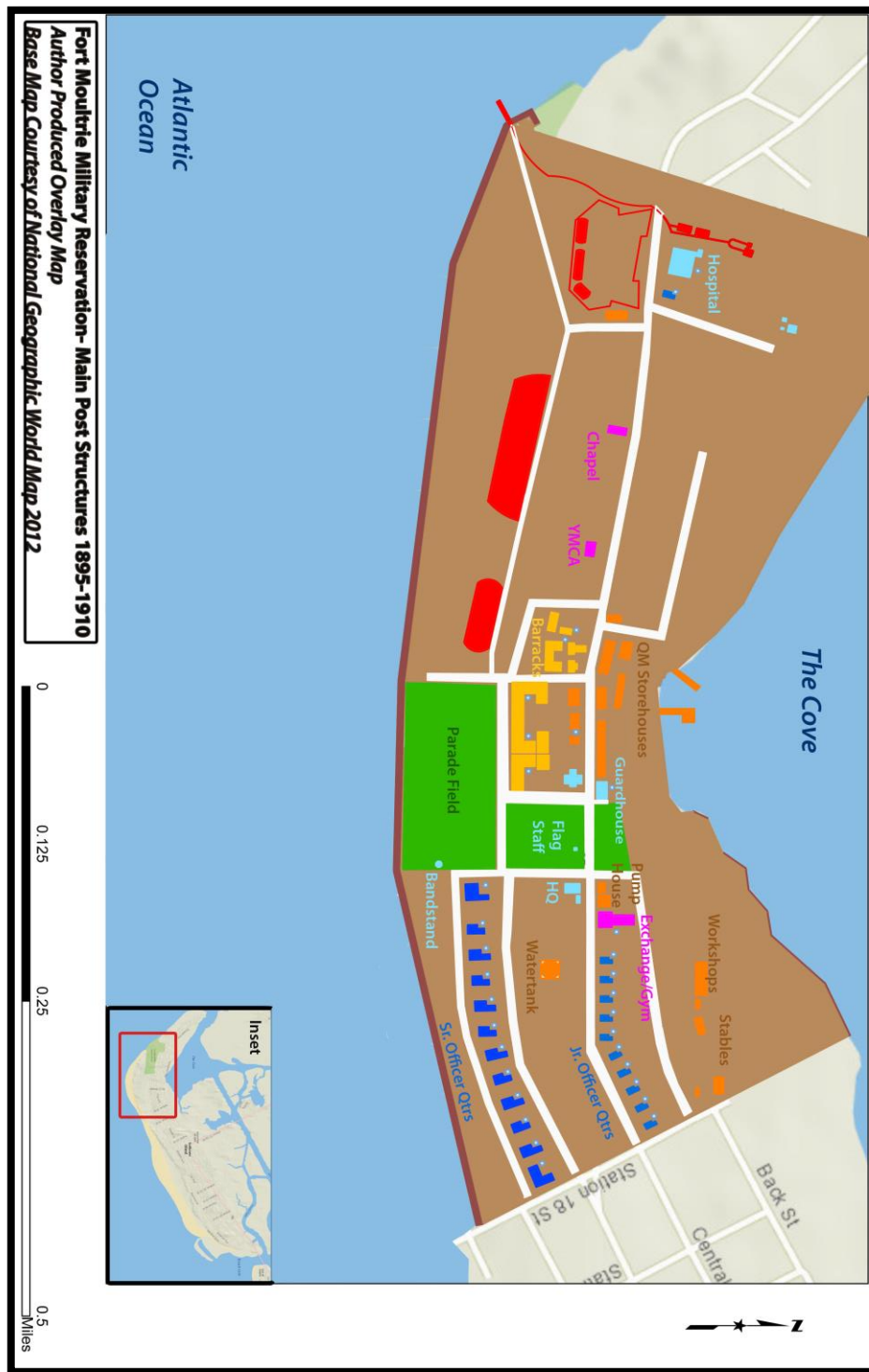


Figure 3.37: FMMR Structures constructed from 1895-1910. Source: author produced GIS/Photoshop basemap.

As the most visible features of FMMR's designed City Beautiful landscape, the post's structures relied heavily on post-Civil War U.S. Army policies for development, layout, and styles. Responsible for construction of all required buildings, the Post Quartermasters ensured that they complied with new Army policies that stated for "all posts which give the promise of permanency, it has been the aim of the Department to construct buildings of brick, stone, or other enduring materials and solid workmanship."<sup>56</sup> Next, in an effort to make the post aesthetically pleasing to the public and its garrison, FMMR Quartermasters used Colonial Revival and Queen Anne architectural styles that were popular at that time. Needing to construct over sixty, non-tactical buildings during FMMR's short initial construction campaign from 1902 to 1910, each of these individual structures were constructed using U.S. Army Quartermaster Corps standardized plans. Given to civilian contractors hired and supervised by the Post Quartermaster, these standardized plans were similar to late-nineteenth century construction pattern books that allowed builders to quickly erect structures, since lists of all material requirements and construction steps were included.<sup>57</sup> By complying with the Army's twentieth century guidance on constructing a permanent, popular and architecturally styled post with the uniformity of standardized plans, FMMR Quartermasters successfully built the required administrative, housing, support, and recreational buildings that drastically replaced the island's past scattered beach cottage built landscape.

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<sup>56</sup> *Report of the Secretary of War, Annual Report of the Chief of Engineers, 1893* (Washington D.C.: U.S. Army Corp of Engineers, 1893) 9.

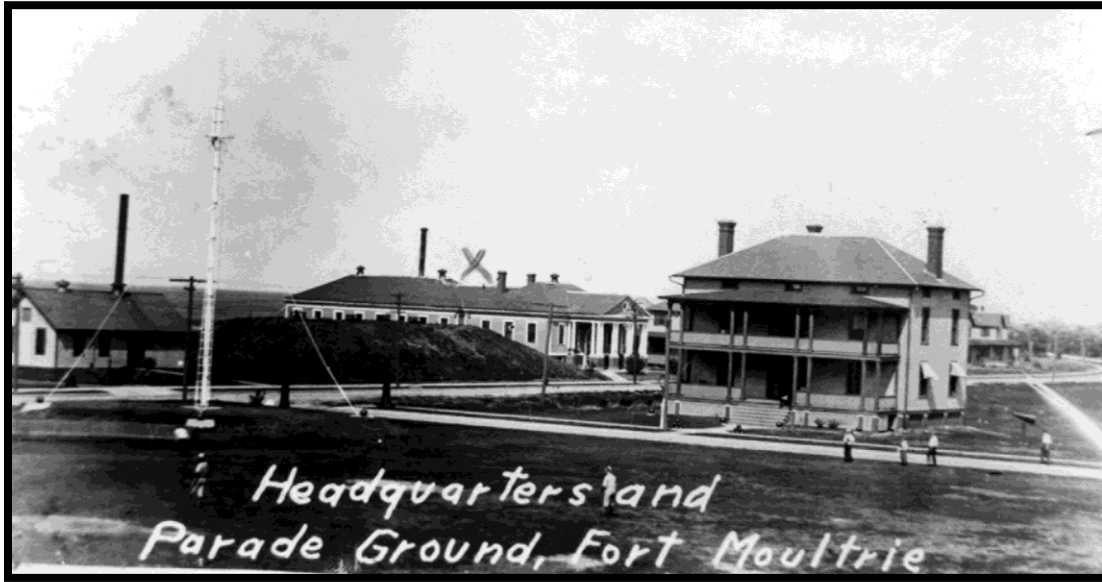
<sup>57</sup> U.S. Army Environmental Center. *Context Study* 35-40.



**Figure 3.38: 1910 Photograph taken by island resident Mrs. Nanney of the Post Headquarters located on the parade field and the intersection of Central Street and Station 17. Courtesy of the Fort Sumter NPS Archives.**

The center of the new post revolved around the parade ground and their surrounding administrative buildings that were responsible for the post's daily command and control. One of the first buildings completed in 1902, the Post Headquarters was located on the northeastern edge of the parade field with its front façade oriented towards the west, facing the post flagstaff. The two- and one-half story 4,500 square-foot, colonial-revival design had double-front piazzas that were very familiar to the local Charleston builders contracted to build the structure for \$6,140. The wooden frame structure rested four feet off the ground on a brick pillar foundation and had a slate hipped roof with projecting eaves that protected the wood clapboard siding. The finished

interior included all of the post's modern utilities, plastered walls, and hardwood floors for all of the post's required headquarters offices and meeting areas.<sup>58</sup>



**Figure 3.39: 1910s Photograph of FMMR Post Headquarters with the parade ground and post flagstaff in the foreground. In the background of the photograph from left to right is the Pump House, Post Reservoir, and Post Gymnasium/ Club. Courtesy of the Fort Sumter NPS Archives.**

In front of the Post Headquarters, the post's one hundred foot, steel flagstaff dominated the surrounding landscape and clearly identified the island's military presence. The flagstaff was constructed of two pieces, to commemorate Sergeant Jasper's heroic actions of 1776, in which he repaired the original Fort Moultrie's broken flagstaff under fire by tying together the two parts with rope.<sup>59</sup> At the southern end of the parade field, another key command and control structure, the post's twenty-two foot wide, octagon bandstand, was completed by the end of September, 1902. This structure, important during the garrison's daily accountability parades and occasional concerts, housed up to

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<sup>58</sup> *Historic Building Record Cards for Fort Moultrie: Building 1, Post Headquarters* (National Archives, Record Group 77; Box 162, College Park, MD)

<sup>59</sup> *Historic Building Record Cards for Fort Moultrie: Building 42, Post Flagstaff* (National Archives, Record Group 77; Box 162, College Park, MD)

twenty-eight of the garrison's bandmen, whose music helped to keep the soldiers marching in step and contributed to overall morale. The bandstand was built according to the Officer of Quartermaster General (O.Q.M.G.) Plan Number 64-A, sitting five feet off the ground on a brick foundation with wood octagon floor and open wooden frame walls supporting a steep slope pyramidal, standing seam, tin roof.<sup>60</sup> FMMR's military bandstand matched the civilian fashion of including these structures in the overall landscape designs for the Charleston's area public spaces like the 1895-built Chicora Park bandstand, the 1902-built Hampton Park bandstand, and the 1907-built White Point Gardens bandstand.



**Figure 3.40: 1906 Photograph taken by Mrs. Fromberger of Hanahan, S.C. of the informal guard mount occurring in front of the bandstand on the beach end of the parade field. Courtesy of the Fort Sumter NPS Archives.**

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<sup>60</sup> *Historic Building Record Cards for Fort Moultrie: Building 36, Post Bandstand* (National Archives, Record Group 77; Box 162, College Park, MD)

Another important FMMR administrative building built in the summer of 1902, located on the parade field's northwestern corner, was the one- and one-half story, 2,100 square-foot guardhouse. Sitting across from the post headquarters building, the guardhouse was constructed as O.Q.M.G. Plan No. 1901 that could hold a total of twenty-six prisoners. Its colonial revival design elements included a brick pillar foundation, framed clapboard exterior walls supporting a slate pyramidal roof and a covered one-story piazza on the front façade facing the parade ground. All of the post's coal heating, water, sewer and electric conveniences were included to support the post provost marshal execution of his duties and provide adequate living conditions for soldiers arrested for various infractions and crimes. FMMR's guardhouse with its modern amenities was the first permanent structure dedicated to police enforcement on Sullivan's Island and provided a secured location to hold criminals before trial or transfer to Charleston's larger regional prison.<sup>61</sup>

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<sup>61</sup> *Historic Building Record Cards for Fort Moultrie: Building 21, Post Guard House* (National Archives, Record Group 77; Box 162, College Park, MD)





**Figure 3.41: 1911 Photograph of the Post Dispensary and Guard House located on the northwest edge of the parade ground and Central Avenue. Courtesy of the Fort Sumter NPS Archives.**

The only major administration building erected during FMMR initial construction campaign, not constructed on or in close proximity to the central parade field, was the two and one-half story, 31,000 square-foot Post Hospital, located on the northern side of Middle Street across from the old brick Fort Moultrie's sally port entrance. Built on the site of the old fort's parade grounds with its imposing two-story wraparound open piazzas' colonial revival façade facing Middle Street, the Post Hospital dominated the western end of the installation, greeting individuals as they entered the post's western entrance. The hospital's design and construction materials were similar to the other administrative buildings, being constructed with a brick foundation, wood clapboard exterior siding, and a slate, hipped roof with projecting dormer windows. This building's substantial interior allowed for the construction of a modern hospital of sixty beds with two large wards that included operating, surgical, sterilization, dispensary rooms in

addition to required offices and storage space. As the first permanent health facility constructed on Sullivan's Island in the summer of 1902, the hospital had electric interior lights in all rooms, running water and sewage for each floor's large lavatory, and hot water radiator heating from a coal powered furnace.<sup>62</sup>



**Figure 3.42: 1925 Photograph of Post Hospital located to the north of the Old Fort Moultrie and FMMR Western Entrance along Central Street. Photograph donated by Harold E. Windham to and courtesy of the Fort Sumter NPS Archives.**

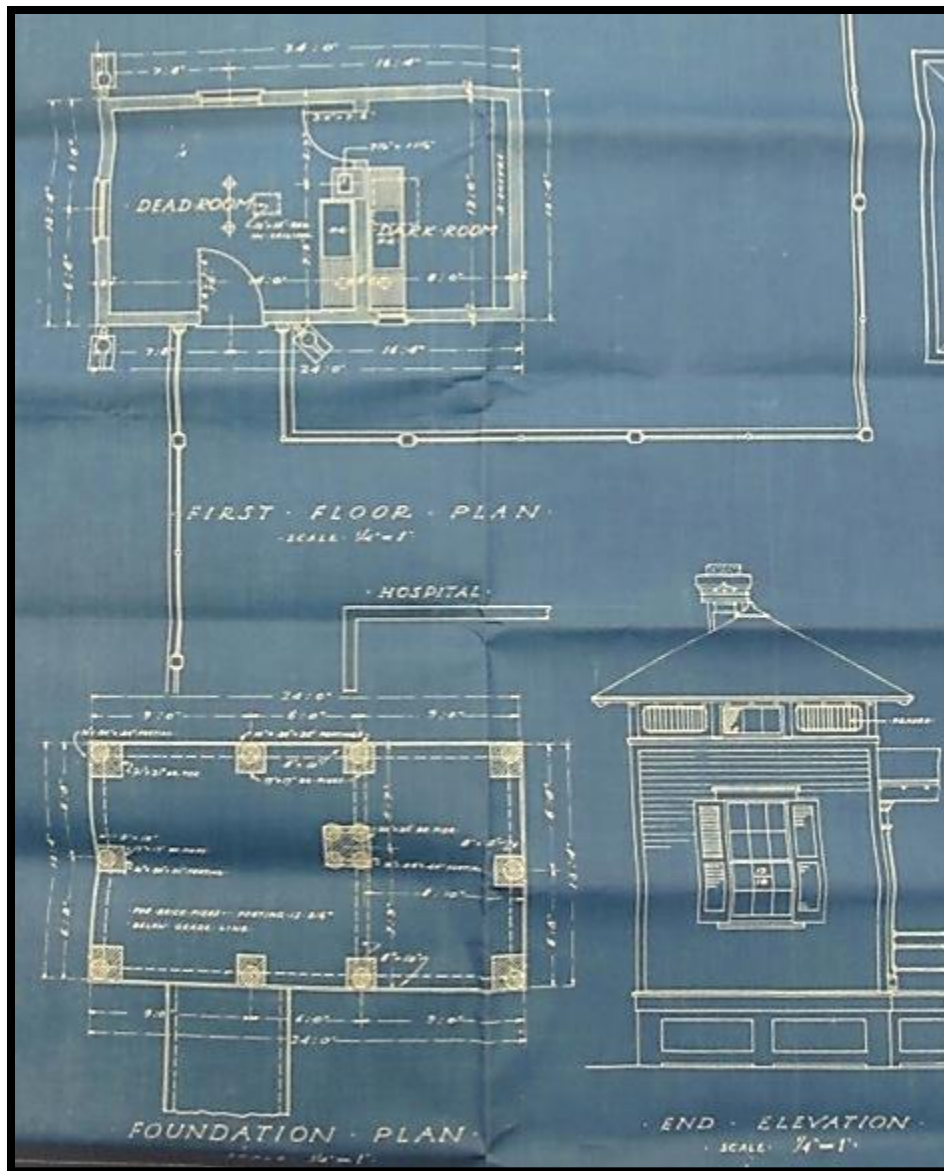
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<sup>62</sup> *Historic Building Record Cards for Fort Moultrie: Building 34 Post Hospital* (National Archives, Record Group 77; Box 162, College Park, MD)

One shortfall in the design of the new Post Hospital was identified quickly after its construction is that the building, along with the rest of Sullivan's Island, did not have a morgue. This twentieth century medical resource was required for medical personnel to have a segregated space to evaluate cause of death and the nearest was at Charleston's regional hospital during the early 1900s. As the FMMR garrison continued to grow and an increasing number of soldiers died from training accidents and diseases, the hospital needed a space for autopsies instead of sending the cadavers to Charleston for evaluation. In the spring of 1908, a one-story two hundred and sixty square-foot addition was added to the northwest corner of the hospital for the Sullivan's Island first permanent morgue. The two-room addition cost \$2,000 to construct and began the future expansion pattern of the hospital complex. As new medical facilities were required, they were attached via covered walkways to the original core 1902 hospital building.<sup>63</sup>

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<sup>63</sup> *Historic Building Record Cards for Fort Moultrie: Building 34-A Post Dead House* (National Archives, Record Group 77; Box 162, College Park, MD)



**Figure 3.43: 1907 U.S. Army Quartermaster Corps Blueprints for construction of a one-story morgue to be attached to the northwest corner of the existing hospital. Blueprint shows the foundation plan, first floor plan and end elevation views. Courtesy of National Archives RG 92 Chief of the Quartermasters Box 330- Blueprint Group, College Park, MD.**

Second in importance only to FMMR administrative buildings, the post's permanent housing for its officers, non-commissioned officers, soldiers, and their families was arranged around the central parade grounds according to their military hierarchy. The military importance that determined the location of these three separate

living areas matched the overall size and ornateness of each of these groups' living quarters.<sup>64</sup> The post's officers had eleven of the largest, elaborate single-family homes and one large bachelor officer quarter apartment building built along the ocean northern side of the parade ground. The largest officer residence was the two-and one-half story, 9,500 square-foot Commanding Officer's quarters placed on the corner of Station 17 and I 'On Street, the highest piece of land on the new installation, adjacent to the Post Headquarters overlooking both the parade field and the ocean.



**Figure 3.44: 1914 Photograph of the Post Commanders Quarters from Photo Album of Jesse Sinclair. Courtesy of the Fort Sumter NPS Archives.**

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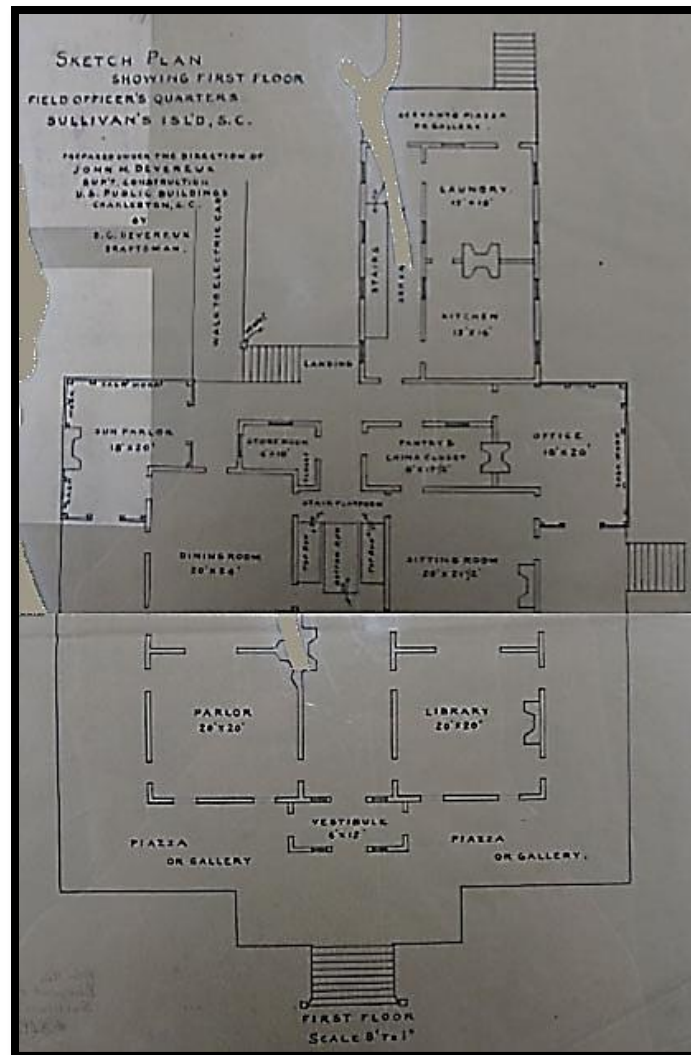
<sup>64</sup> Mark Berhow, Joel Eastman and Bolling Smith. "Barracks, Bakeries, and Bowling Alleys: Non Tactical Structures at American Coast Artillery Forts" (*Coastal Defense Reference Guide Vol. 2*. Bel Air, MD: CDSG Press, 2010) 507-515.

Constructed in the spring of 1902, the officer quarters were designed in the colonial revival style, with Queen Anne details like the large two-story wrap-around covered piazzas and attached servant quarters. There were three different plans-- one for the base commander, one for Captains, and one for Lieutenants. While the overall size of these married quarters corresponded to the officer's rank, with the Captains getting 5,500 square-feet and Lieutenants getting 3,300 square-feet of living space, the construction materials and methods used were very similar. All of the officer's quarters were constructed on a brick pier foundation, a wood framed structure, wood clapboard siding, and an irregular hipped high cross gable slate roof. The interior plans of these structures include parlors, dining rooms, libraries, offices, multiple bedrooms and bathrooms along with attached servant-run kitchens, laundry, storage rooms and servant quarters, making them some of the largest single-family homes on the island. Matching the ornate interior details of the officer quarters were modern utilities of running water and sewage lines to the multiple bathrooms and kitchen, along with coal furnaces that supplied heat and electric lights in all rooms.<sup>65</sup> The overall ocean front location and size of these permanent modern houses were designed to signify their importance to any visitors to the installation and provide an impressive, gentle curving avenue along the installation's northern boundary.

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<sup>65</sup> *Historic Building Record Cards for Fort Moultrie: Building 5-15 Officer's Quarters, Building 16 Bachelor Officers Quarters* (National Archives, Record Group 77; Box 162, College Park, MD)





**Figure 3.45: 1902 Blueprint of 1<sup>st</sup> Floor of Post Commander's Quarters by R.C. Devereux, Draftsman. Courtesy of the National Archives RG 92 Blueprint Group, College Park, MD.**

Located behind the Officer's Quarters but along the fort's central transportation axis of Middle Street are the ten smaller two-story Colonial Revival styled non-commissioned officers (NCO) quarters constructed during two construction campaigns of 1902 and 1909. Secondary in important to the post's officers, these quarters were smaller in scale with about 1,200 square feet of living space divided between two bedrooms, one bathroom, a living room, a dining room, and kitchen for each NCO and his family.



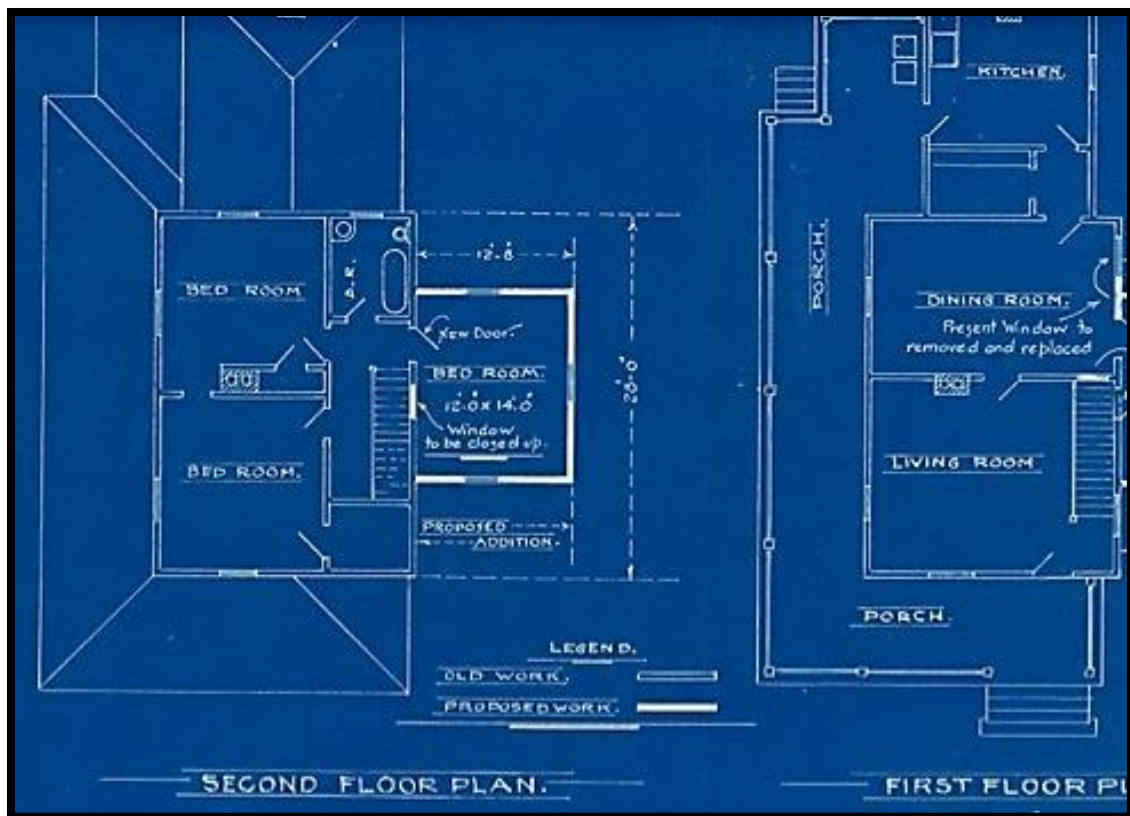
**Figure 3.46: 1932 Photograph of the Staff Non-Commissioned Officers Quarters on Central Street taken from the post water tank. Image shows the circular water cisterns adjacent to the NCO Quarters along with post stables located to their rear. Courtesy of the Fort Sumter NPS Archives.**

While the interior details of these quarters were simpler, the Post Quartermaster included the modern utility conveniences found in all other important post structures.<sup>66</sup> This vast improvement in living conditions for the U.S. Army's senior soldiers and their families was one of the top priorities of early twentieth century base planning in order to create a more modernized profession army that took care of its leadership. As a result of the Army including these modern utility conveniences in all of the post's family housing, Sullivan's Island civilian residents began pressuring their local government officials to construct similar electrical, water, and sewage systems. This desire to modernize their utilities had been promoted by the government's construction of both FMMR and the Charleston Naval Shipyard installation at the same time that Charleston's elites were installing them in their city homes.

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<sup>66</sup> *Historic Building Record Cards for Fort Moultrie: Building 24-29, 33, 50, 87-89* (National Archives, Record Group 77; Box 162, College Park, MD)





**Figure 3.47: 1920s U.S. Quartermaster Corps Blueprint for FMMR Staff Non-Commissioned Officer Quarters planned addition of one bedroom on the second floor and a parlor on the first floor. Image shows the original layout of the quarters to have two bedrooms and one bathroom on the second floor and a kitchen, living room, and dining room on the first floor. Courtesy of National Archives RG 77 Chief of the Quartermasters Box 162- Blueprint Group, College Park, MD.**

The final type of housing constructed during the FMMR initial construction campaign supported the majority of the garrison, the soldier's barracks. A total of four various sized colonial revival styled barracks with large, two- story, wrap-around porches were constructed during this period using the same construction materials and methods of the post's other housing. The first two barracks constructed in the summer of 1902 were the 161-man, two- and one-half story, 23,000 square- foot single wing barracks and the 289-man, two- and one-half story, 46,000 square foot, double wings barracks located on the northwest corner of the parade ground. Because of the rapid growth of fort's

garrison, immediately to the southwest of these barracks along the parade field and behind Battery Logan, a 121-man, two- and one-half story, 14,000 square foot small unit barracks was constructed in 1906 and a 36-man, two- and one-half story, 3,400 square foot, band barracks was constructed in 1909.



**Figure 3.48: 1911 Photograph of a FMMR Single Barracks Building taken by island resident Mrs. Nanney. Courtesy of the Fort Sumter NPS Archives.**

Occupying the large space between Station 15, Station 16 ½, the parade field and Middle Street, the garrison's four active duty companies' barracks complex dominated the central part of FMMR's designed landscape. The main sections of the barracks facing the parade grounds were designed with large unit training and recreational rooms on the first floor, with large non-partitioned sleeping quarters occupying the space on the second floor. To the rear of each set of barracks were two, detached, single story structures located at the northeast and northwest corners, one for the barracks' lavatory

and the other for the barracks' mess hall and kitchen. These barracks and their detached supporting structures provided superior housing for early twentieth century U.S. Army soldiers with their hot-air furnace heating, electrical lighting, running water, flush toilets.<sup>67</sup> Executing the drastic improvements in soldiers' living conditions that the Army promoted with the construction of the permanent Endicott reservations, along with the mild climate in close proximity to Charleston's big city amenities, FMMR's soldiers must have taken pride in being assigned to a modern post, especially when compared to their hometowns or the rural communities surrounding Charleston.



**Figure 3.49: Interior view of 1906 Christmas decorations inside the 89<sup>th</sup> C.A. CO mess hall directly attached and behind their barracks. Courtesy of the Fort Sumter NPS Archives.**

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<sup>67</sup> *Historic Building Record Cards for Fort Moultrie: Building 2 Double Barracks, Building 3 Single Barracks, Building 4 Single Barracks, and Building 91, Band Barracks* (National Archives, Record Group 77; Box 162, College Park, MD)

Another group of structures constructed during FMMR initial construction campaign was the support and services facilities built along the cove side of the island for the post's quartermaster and ordnance soldiers. Supplying, transporting, and repairing all of the garrison's personnel and their assigned equipment required the construction of eighteen different structures. Most of these structures consisted of offices, warehouses, and workshops built from the simple and utilitarian O.Q.M.G. plans around the Quartermaster Docks and Station 16. These basic elongated rectangular structures were built on brick pier foundations above grade with wood or concrete floors, a wood frame structure of wood clapboard siding, and a side gabled slate roof. The modern utilities found in the more important administrative and housing structures were not included in these support facilities until modernized later in the century.<sup>68</sup> Organized around the post's transportation hub, and utilized to store supplies and repair the post's equipment, the support buildings constructed during this initial construction period were designed to serve their assigned duties without the architectural style that was seen at other areas of the post.

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<sup>68</sup> *Historic Building Record Cards for Fort Moultrie* (National Archives Record Group 77. Box 162,163. College Park, MD)



**Figure 3.50: 1911 Photograph of the FMMR Ordnance Office located within the Quartermaster Facilities surrounding the Quartermaster Docks. Images shows the short-gauged railroad tracks located in front of the building for transporting ordnance quickly from the docks to nearby storehouses. Courtesy of the Fort Sumter NPS Archives.**

Located in the northeast corner of the new installation along Station 18 and the Cove's marsh areas, FMMR's stables, corral, and garages for the fleet of mule drawn wagons and motorized trucks provided the post's transportation assets. Constructed in the summer of 1902, the one and one half-story 1,900 square foot post's stable was constructed of the same materials as the other service buildings with a capacity for forty horses or mules. Around the outside of the stable was a large wood fenced corral. Both of these structures are seen in Figure 3.51. The large fleet of motorized vehicles was stored in a nearby one story, 2,500 square foot wagon shed that also included a blacksmith shop and harness room. As FMMR continued to grow in size throughout the early twentieth century, the requirements for both animal drawn and motorized vehicles

resulted in the increased number of service structures being constructed in the FMMR's stable and garage area.<sup>69</sup>



**Figure 3.51: 1900s photograph of FMMR Stables and Army mules taken by Mr. Woodrow Seager located behind the Staff NCO quarters and Station 18. Courtesy of the Fort Sumter NPS Archives.**

Two other important service structures were constructed on the south side of Station 17 intersection with Middle Street, across from the Quartermaster docks and support facilities. The one story, 1,500 square foot bakery was constructed in November, 1902, to replace the old Fort Moultrie's nineteenth century original bake house. The structure's two large bake ovens and required bakery staff of Quartermaster soldiers worked around the clock in order to supply the adjacent barracks' mess halls with fresh

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<sup>69</sup> *Historic Building Record Cards for Fort Moultrie: Building 31 Stables, 47 Wagon Shed* (National Archives, Record Group 77; Box 162, College Park, MD); *Historic Photograph Card Index: Ft Moultrie/ Sullivan Island* (Fort Sumter Curatorial Center, Charles Pinckney National Historic Site, National Park Service, accessed and scanned Summer 2012)

bread, resulting in a constant smell of fresh bread around Station 17.<sup>70</sup> Adjacent to the bake house, was the one story, six hundred square-foot firehouse that sheltered all of the post's firefighting equipment. Constructed using O.Q.M.G. plan number 98-C, this building was the island's first fire-fighting structure and its equipment was used for fighting both civilian and military fires on Sullivan's Island.<sup>71</sup> Both of these small buildings had a huge impact on improving garrison daily life by providing services that in the nineteenth century would have not been so commonplace as they were on the new permanent Endicott installations.

Recognizing the need for recreational opportunities to keep soldier's morale, physical fitness, and competitiveness high, FMMR Quartermaster builders included a limited grouping of recreational facilities during this initial building campaign. The first structure constructed for this purpose was in the spring of 1906, when the 4,300 square foot Post Exchange and Gym was opened between the Non-Commissioned Officer Quarters and Post Reservoir on Middle Street. The large, single-story frame structure was divided into two parts, the front section was the Post Exchange, where soldiers could purchase items like in a general store, while the back section held a 79' X 35' wide hardwood floor gymnasium. Constructed using the O.Q.M.G plan number 157-A, the building was one of largest structures on the island at that time and immediately became a gathering place for soldiers during off duty hours. Recognizing the value of the Post Exchange and Gym building, the post leadership immediately authorized the construction

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<sup>70</sup> *Historic Building Record Cards for Fort Moultrie: Building 35, Post Bake House* (National Archives, Record Group 77; Box 162, College Park, MD)

<sup>71</sup> *Historic Building Record Cards for Fort Moultrie: Building 21, Post Guard House* (National Archives, Record Group 77; Box 162, College Park, MD)



of a structure for one of the nation's early twentieth century leading recreational and religious organization, the Young Men's Christian Association (YMCA). Located to the rear of Battery Jasper near the intersection of Middle Street and Station 15, the construction of the YMCA building in the summer of 1906 provided another area close to the garrison's barracks for soldiers to participate in recreational activities.<sup>72</sup>



**Figure 3.52: 1940 U.S. Army Quartermaster Corps Photograph of FMMR's original Officer's Club and Gymnasium built in 1906 and had been replaced in the 1930s by newer buildings. The structure was converted into the Post Engineer's Offices and is located next to the post reservoir on Middle Street. Courtesy of the Fort Sumter NPS Archives.**

Another source of inspiration and relaxation for soldiers assigned during FMMR's early history was not constructed by the U.S. Army but was part of Sullivan's Island landscape before the lots were purchased for the post's expansion. The post's chapel, located on the south side of the intersection between Middle Street and Station 14, was originally constructed in the early 1890s by the local residents as the Holy Cross Episcopal Church. When the U.S. Army condemned the church and its lot as part of the

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<sup>72</sup> Stokeley. *Constant Defender* 79-83.



FMMR expansion in 1902-03, the island congregation received \$9,000 for the property but removed the church bell, stained glass windows and other important details for their replacement chapel being built near Atlanticville. The U.S. Army replaced the missing church features and converted the 150-person capacity, 1,350 square foot stone church into FMMR's chapel. With the expansion of the garrison in the early 1900s, an Army chaplain was assigned to the post, and ensured religious services and counseling were available to soldiers and their families.<sup>73</sup> Combining these religious services along with the newly constructed recreational facilities, FMMR's soldiers actively enjoyed their off-duty hours without having to leave the Post.



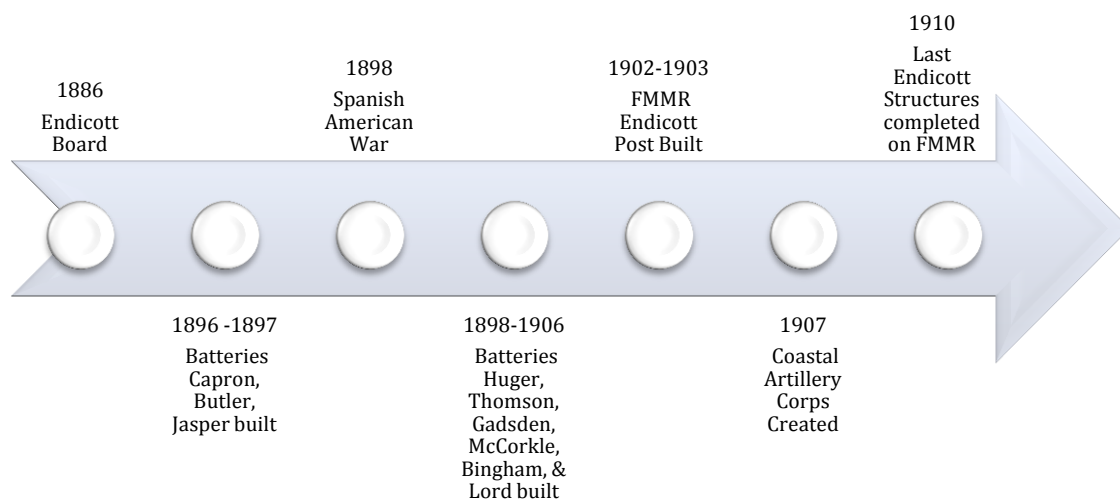
**Figure 3.53: 1930s Photograph of Post Chapel, located at the intersection of Middle Street and Station 14. Church was originally constructed in the 1890s as the Chapel of the Holy Ghost but acquired during the 1902-03 FMMR expansion. Courtesy of the Fort Sumter NPS Archives.**

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<sup>73</sup> *Historic Building Record Cards for Fort Moultrie: Building 44, Post Chapel* (National Archives, Record Group 77; Box 162, College Park, MD); Gadsden Cultural Ctr. *Images of America: Sullivan's Island* 28.

By the end of the initial phase of FMMR's construction in 1910, nine modern Endicott batteries and over sixty new administrative, housing, service, and recreational structures had been erected on the post's two hundred acre site. Only fifteen years earlier, these one hundred and sixty-one residential lots had been covered with wood framed beach cottages and hotels. The design and construction of a permanent U.S. Army installation altered a part of the island into a City Beautiful landscape that supported its military mission. The combination of the island's existing civilian framework with new military boundaries, transportation, and utility improvements had radically pulled Sullivan's Island into the twentieth century. Furthermore, the construction of FMMR as a small, modern urban-planned community alongside other regional economic and civic improvements from this period, had a direct influence on the surrounding Charleston area's public's expectation of what civic life should be.

#### FMMR First Period of Development Timeline



## 2<sup>nd</sup> Period of Development: 1910-1920:

### World War I Expansion

#### Military Mission

During the years leading up to America's involvement in the First World War, the nation's military, including FMMR, transformed itself into an international professional force responsible for defending the nation's enlarging interests. As Charleston's harbor coastal defenses continued to be improved in the 1910s, the U.S. Navy's Charleston Naval Shipyard located on the Cooper River was rapidly expanded becoming one of the largest naval installations in the southeastern United States. The shipyard's missions expanded drastically during the First World War, employing over five thousand six hundred civilian employees, capable of training over five thousand Navy recruits at a time, while constructing or repairing over one hundred and sixty ships by the war's end. Charleston's Naval Shipyard became an important national military resource that was protected by FMMR's defenses.<sup>74</sup> During this period, the Endicott batteries arrayed around Charleston's harbor main purpose was the defense of one of the South's most important cities, but the local importance of protecting one of the area's major industries that also assisted with transforming the nation's Navy is significant.

From 1910 until 1916, the U.S. Army garrison that manned FMMR's Endicott defenses was composed of a revolving group of three to four Regular Army coastal

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<sup>74</sup> City of North Charleston Government Website. *Charleston Naval Base History* (Accessed on January 26, 2013)  
<http://www.northcharleston.org/visitors/attractions/mU.S.eumsandart/navalbasehistory.aspx>

artillery companies. The post's regular turnover of units was due to U.S. Army's manning policies that constantly reassigned units to new oversea territorial coastal artillery fortifications while rotating the remaining Regular Army companies to other continental harbor defense sites. During this reorganization period, FMMR's garrison lacked continuity and had limited manpower, resulting in only one-half of the base's batteries being operational, the remainder were in a caretaker status that the South Carolina National Guard forces could activate, if war was declared.<sup>75</sup>

To cover all of FMMR's required harbor defense systems, the fort's garrison normally occupied the more modern batteries including Battery Huger's twelve-inch guns, Battery Thomson's ten-inch guns, and Battery Lord's three-inch guns. Additionally, the garrison also manned the two original 1896 construction mortar pits of Battery Capron that had been updated with replacement steel mortars in 1915. Because of limited training funding and difficulty in resupplying its armaments, FMMR's occasional test firings were scheduled as yearly island highlights, with notices posted so civilian and military residents could open windows and secure breakables because of the guns' loud and damaging concussions.<sup>76</sup> As a result of these limited live firing opportunities, the garrison normally conducted gun training with dummy rounds and smaller caliber guns as part of their regular daily military drills. Always a persistent danger during military training events, injuries occurred and were seen to by the post's small medical staff. Such an incident occurred on May 17, 1913, when one of Battery Lord's 3-inch guns malfunctioned and fired prematurely, killing Captain Guy Hanna, the

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<sup>75</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 75-80.

<sup>76</sup> Stokeley. *Constant Defender* 81-82.

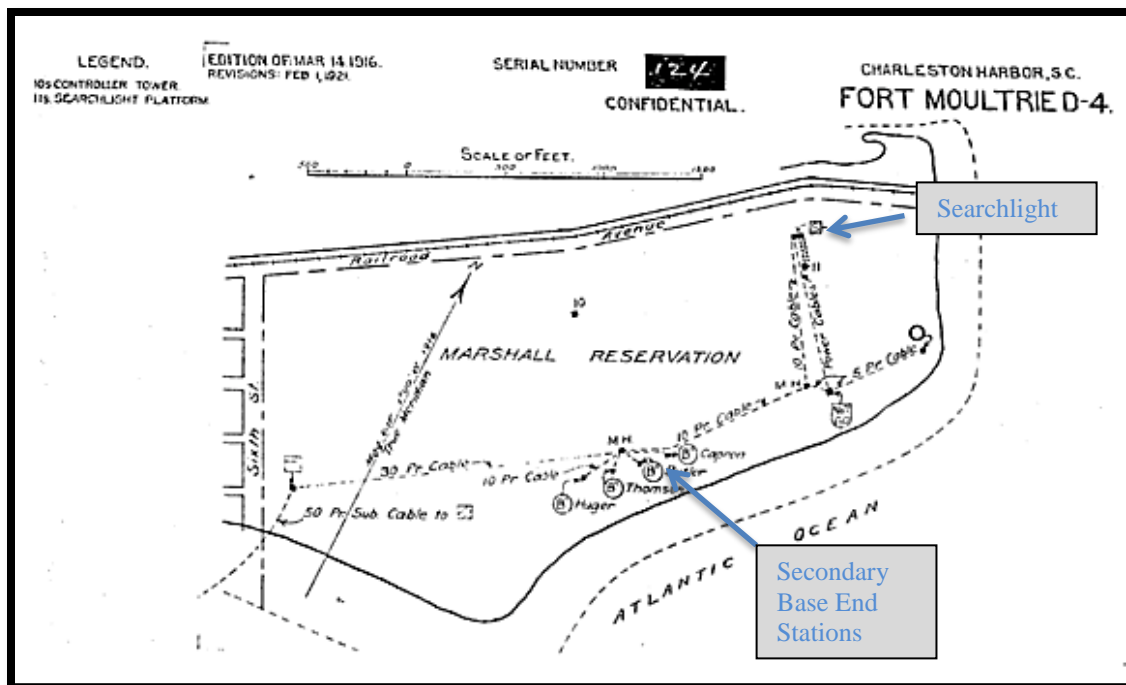
78<sup>th</sup> Coastal Artillery Company commander and two of his soldiers.<sup>77</sup> Even with the occasional accidents, however the daily life of FMMR's Coastal Artillery soldiers during this pre-war period was relatively enjoyable even though the garrison was undermanned and equipped.

One of the installation's key military enhancements during the 1910s was the improvement of the installation's searchlight equipment. Identified as an integral part of a harbor's Endicott coast defense systems, searchlights were used to identify and track enemy targets at night.<sup>78</sup> During FMMR's initial construction period, numerous small-powered twenty-four-inch, thirty-inch, and thirty-six-inch searchlights had been installed on top of the Endicott concrete batteries in order to illuminate the harbor's channel and minefield. The initial placement of these searchlights was problematic since they easily identified battery locations to the enemy and made it difficult for the garrison to operate and sight the guns that the searchlights were close to.

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<sup>77</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 75.

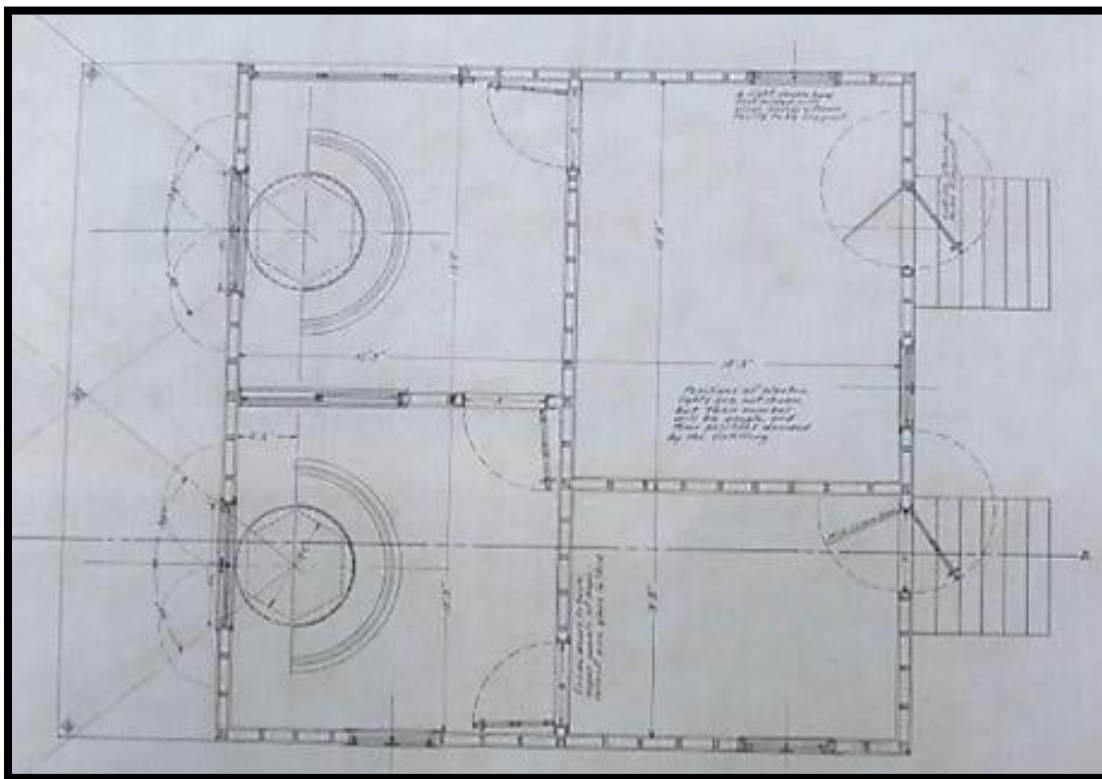
<sup>78</sup> McGovern, Terrance & Bolling Smith. *American Coastal Defenses 1885-1950* 57-58.



**Figure 3.54: 1921 U.S. Army Map of Marshall Reservation on northeastern end of Sullivan’s Island showing a track-mounted searchlight near Breach Inlet. Courtesy of Fort Sumter NPS Archives.**

In an effort to solve this problem in early 1916, FMRR's officers developed a modern searchlight plan that recommended the installation of additional larger, more powerful searchlights at various locations around the island, including one at the northeastern end of the island near Breach Inlet. This uninhabited one hundred acres had been previously used for coastal fortifications during both the Revolution and Civil Wars and was acquired by the U.S. Army in the early 1910s from the state government. Named after a previous Civil War battery, the Marshall Reservation was added in order to meet the Taft's board recommendations for additional searchlights and range-finding equipment in individual battery sighting stations to better triangulate enemy ship locations. As a result of the 1916 plan, a 60-inch searchlight was immediately installed on a rail truck that operated out of a concrete shelter and moved along a short track

adjacent to the beach near Breach Inlet as seen in Figure 3.54. During World War I, additional sixty-inch searchlights were installed according to the 1916 plan at various fixed positions in front of Officer Housing Row, close to the old Ft. Moultrie walls, and a dock at Ft. Sumter.<sup>79</sup> FMMR's upgraded searchlights enhanced the installation's ability to defend the harbor and allowed proper target acquisition for numerous new sets of base end sighting stations being constructed on the coast.



**Figure 3.55: 1906 U.S. Army Corps of Engineer's Blueprints for a Double End Station Structure for Charleston's Harbor Mine and Gun Defenses.** Courtesy of the National Archives, RG 77 Chief of Engineers, Drawer 64 Sheet 82-89, College Park, MD.

Following the recommendations of the decade-old Taft Board to modernize the targeting procedures of all Endicott batteries, FMMR began erecting the required modern sighting and command structures in the late 1910s. FMMR's existing targeting

<sup>79</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 75.

command and control structure had been built in 1906 on the northwestern bastion of the old Fort Moultrie according to U.S. Corps of Engineers plans shown in Figure 3.55. This dual set of observation rooms and plotting rooms arranged in the wood framed structure provided secondary targeting information to all battery commanders via telephone lines when enemy forces were attacking the harbor.



**Figure 3.56: 1911 Photography of FMMR Primary Targeting Station on northwest bastion of old Fort Moultrie taken by island resident Mrs. Nanney. Courtesy of the Fort Sumter NPS Archives.**

FMMR's individual battery commanders would incorporate this information along with their own observations from their own command stations located on top of their battery to target their guns and make adjustments as needed. This provisional targeting system was antiquated by America's 1917 entrance into World War I and was immediately improved upon by erecting individual battery primary and secondary base end sighting that used improved optics and range-finding equipment to easily triangulate targets. These simple two room wood structures were built along the beach dunes in



front of the Officer's Housing, Marshall Reservation, and an early 1900s Life-saving Station erected between the main installation and Battery Gadsden.<sup>80</sup> By constructing these Taft Board improvements, FMMR batteries were each able to accurately sight and adjust their fires independently, greatly improving Charleston's harbor defenses.

The technological improvements to FMMR's Endicott batteries occurred in accordance with the rapid enlargement of the installation's garrison as the nation mobilized during World War I. The expansion began with Congress' passing the 1916 National Defense Act, which increased the Coastal Artillery Corps by one third and resulted in the creation of FMMR's fourth U.S. Army regular coastal artillery company. In order to adequately manage the troop increases included in the 1916 National Defense Act expansion, the U.S. Army re-designated their scattered coastal artillery units according to individual installations, making FMMR's four units, the first, second, third, and fourth companies of the Coastal Defenses of Charleston.<sup>81</sup> Within a few months after war was declared in the spring of 1917, five South Carolina National Guard Coastal Artillery Companies were mobilized on Sullivan's Island and incorporated into FMMR's numbering convention by being re-designated the sixth, seventh, eighth, ninth, and tenth companies, Coastal Defenses of Charleston.<sup>82</sup> The 1917 Coastal Artillery Corps' reorganization and the decision to use National Guard forces to reinforce FMMR's

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<sup>80</sup> *FMMR Post Correspondence, Office of the Chief of Staff 1918-21* (National Archives, Record Group 165; Box 116, College Park, MD); *Site Plans, Coastal Defense of Charleston, Fort Moultrie, Sullivan's Island, D-1 to D-4 February 1, 1921* (Harbor Defense Files, National Archives, Record Group 77, College Park, MD); Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 83.

<sup>81</sup> Stewart. *American Military History* 387-388.

<sup>82</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 81.

Regular Army garrison had successfully resulted in the rapid occupation of FMMR's nine updated Endicott batteries during the nation's first few months of the war.

As the threat of German naval attacks on the eastern coast of the United States was reduced by the beginning of 1918, the U.S. Army began organizing American Expeditionary Force's heavy artillery regiments out of individual Coastal Artillery Corps (CAC) units because of their experience operating large caliber guns. In the spring of 1918, FMMR began receiving large numbers of men to train in its new mission of preparing artillerymen for combat in the trenches along the Western Front. These increases further enlarged the number of units assigned into a total of thirteen different companies, numbering nearly 3,000 soldiers. As rapidly as the soldiers arrived and began their training, large numbers were transferred to three separate deploying overseas artillery regiments organized during this period. The first, 61<sup>st</sup> Artillery Regiment (CAC) was organized in May, 1918, and left Sullivan's Island in June for combat in France. The second, the 75<sup>th</sup> Artillery Regiment (CAC) was organized in August, departed in September, and arriving in France just before the Armistice. The third, the 36<sup>th</sup> Artillery Regiment (CAC) was organized in September before being transferred to Fort Eustis for overseas transportation as peace was declared in November 1918.<sup>83</sup>

As one of the largest military installations in South Carolina during the war, FMMR quickly converted itself from a small peacetime Regular Army installation into a large training facility for mobilizing troops. But when peace was declared in November 1918, the remaining garrison of seven companies, Coastal Defenses of Charleston,

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<sup>83</sup> Ibid. 82; Stokeley. *Constant Defender* 84-86.

followed the U.S. Army's demobilization policies by quickly releasing the remaining National Guardsmen to their civilian lives. The remaining U.S. Army Regulars were composed into their original, first to fifth companies, Coastal Defenses of Charleston, but remained that way only for a year, when further post-war military reductions resulted in the fifth company being disbanded to fill shortages in the garrison's other four companies.<sup>84</sup> The mobilization and requirements to train National Guard and Reserve forces for national service in World War I had created a new military mission for FMMR and similar remaining U.S. Army installations after the post-war drawdown. This training requirement would have to be balanced with the continued upgrading of the coastal artillery's armament and systems used to defend Charleston's harbor until the next conflict that would alter Sullivan's Island landscape once again.

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<sup>84</sup> Ibid. 83.

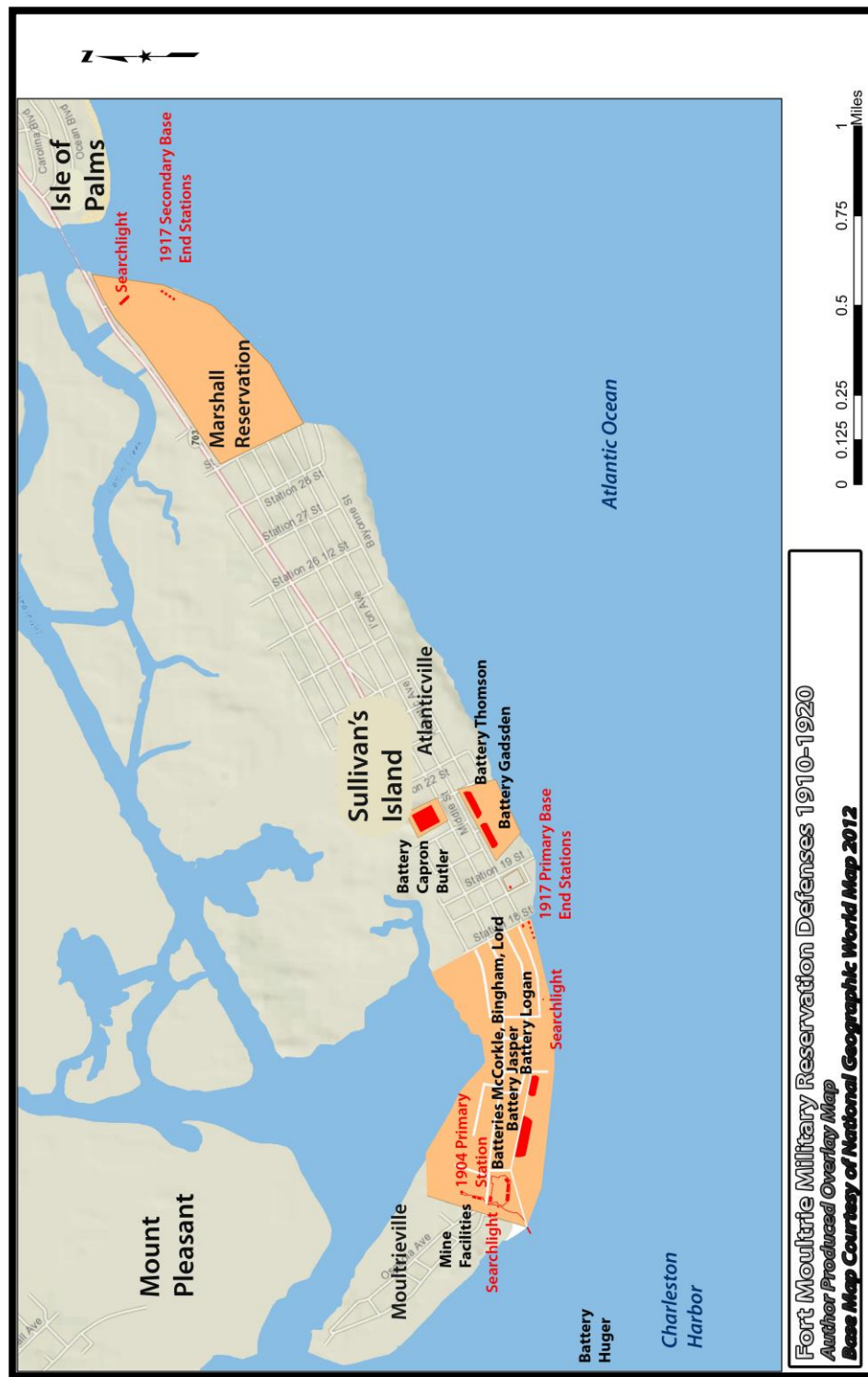
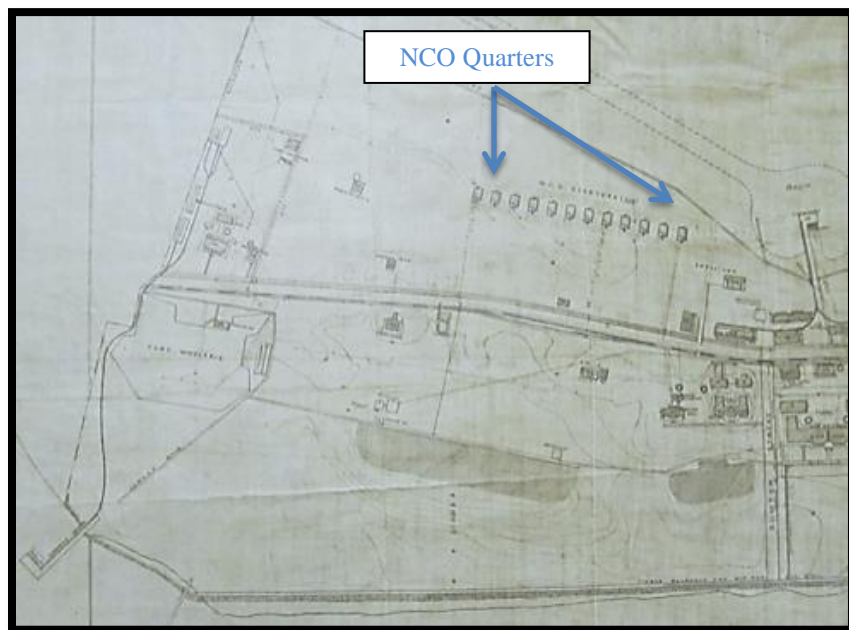


Figure 3.57: FMMR Coastal Artillery Corps Defenses: 1910-1920. Source: author produced GIS/Photoshop basemap.

### Spatial organization

With the completion of FMMR's initial construction period, the organization of the installation's core areas had been arranged along City Beautiful inspired avenues that changed very little during the 1910s. But, improvements to the existing Endicott armaments and additional military missions impacting the garrison's growth, resulting in changes to the post's layout that still respected FMMR primary mission of defending Charleston's harbor. Because of this, 1910s growth areas were primarily placed at the edges of the existing reservation's footprint or located in the newly acquired one hundred acres of the Marshall Reservation on the northeastern tip of Sullivan's Island. These secondary structures were considered temporary facilities but would increasingly become more crucial to FMMR overall mission. As a result in the future, FMMR leadership would make an effort to link them to the post's central core area.



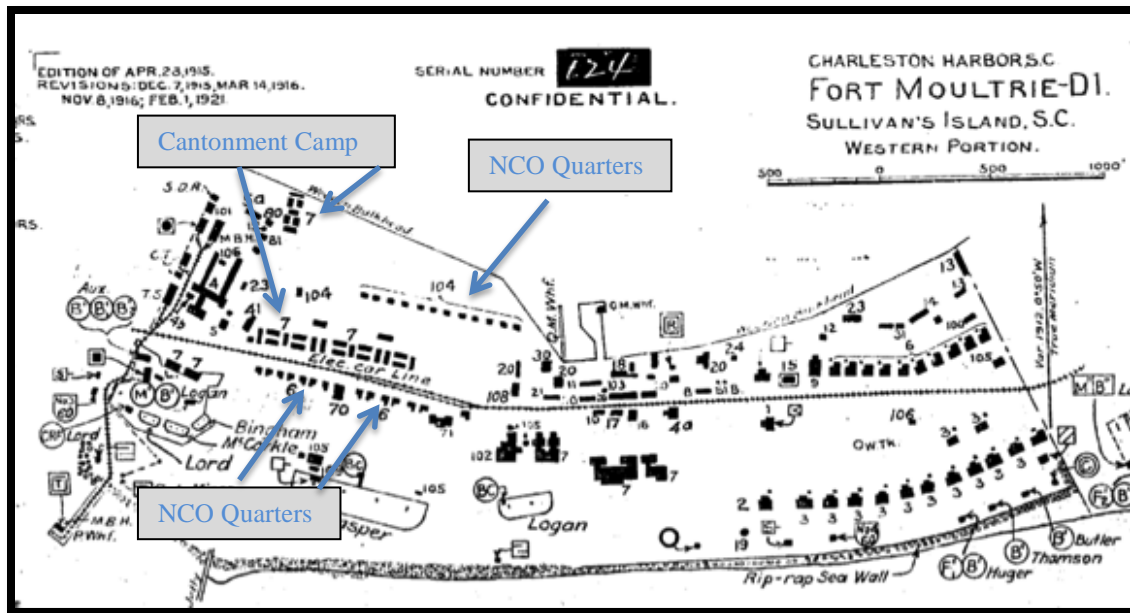
**Figure 3.58: 1916 U.S. Army Quartermaster Corps FMMR Map showing location of 12 Non-commissioned Officer Quarters adjacent to the Quartermaster Docks and the Cove area of the installation. Courtesy of the Fort Sumter NPS Archives.**

The main area constructed during this period was designed to fill shortfalls in Non-commissioned Officers (NCO) Quarters for FMMR's Regular Army garrison. Following the Army's twentieth century planning guidelines for constructing permanent family housing for its professional force, in 1914 FMMR's Quartermasters placed twelve NCO quarters along the vacant cove area adjacent to the Quartermaster Dock area as seen in Figure 3.58. By orienting the houses facing Middle Street but offset from this main avenue, the military hierarchy was maintained for these lower rank quarters when compared to the location of the Officer or Senior NCO Quarters that had previously been constructed.<sup>85</sup> After establishing the cove area between the hospital and quartermaster dock as an area for lower ranking personnel with the placement of the original 1914 NCO quarters, FMMR Quartermasters decided to fill the remainder of this area with additional NCO quarters and a cantonment area for the expanding World War I garrison. In 1918, an additional thirteen NCO family quarters were constructed along the southern side of Middle Street, while a cantonment camp of barracks, latrines, and storerooms for over 1,500 soldiers was constructed along the northern side of Middle Street in this area.<sup>86</sup> These First World War mobilization construction campaigns were oriented facing Middle Street with additional secondary services roads to their rear as seen in Figure 3.59.

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<sup>85</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island*. Fort Sumter National Park.

<sup>86</sup> *Questionnaires of Conditions at Posts, compiled 1918 – 1921 Fort Moultrie* (National Archives, Record Group 165: Box 3. Textual Records from the War Department. War Plans Division. Morale Branch. (07/14/1919 – 1921 Textual Archives Services Division, College Park, MD)



**Figure 3.59: U.S. Army Coastal Artillery Corps 1921 FMMR Map showing the cantonment camp and Non-commissioned Officers Quarters areas constructed between the Old Fort Moultrie and the Quartermaster/Barracks Area. Courtesy of the Fort Sumter NPS Archives.**

As this section of the post had been established as the training area and the majority of these cantonment or provisional residential facilities were built according to the Quartermaster's Corps 600-series plans for temporary buildings, they did not last long after the war. During the 1920s/30s post-war period, this land use would continue, as FMMR's new military mission requirements required this training area. Figure 3.60 illustrates how the 1910s division between the post's primary core parade ground center and the expanding secondary training camp area foreshadowed the forthcoming separation of FMMR missions.



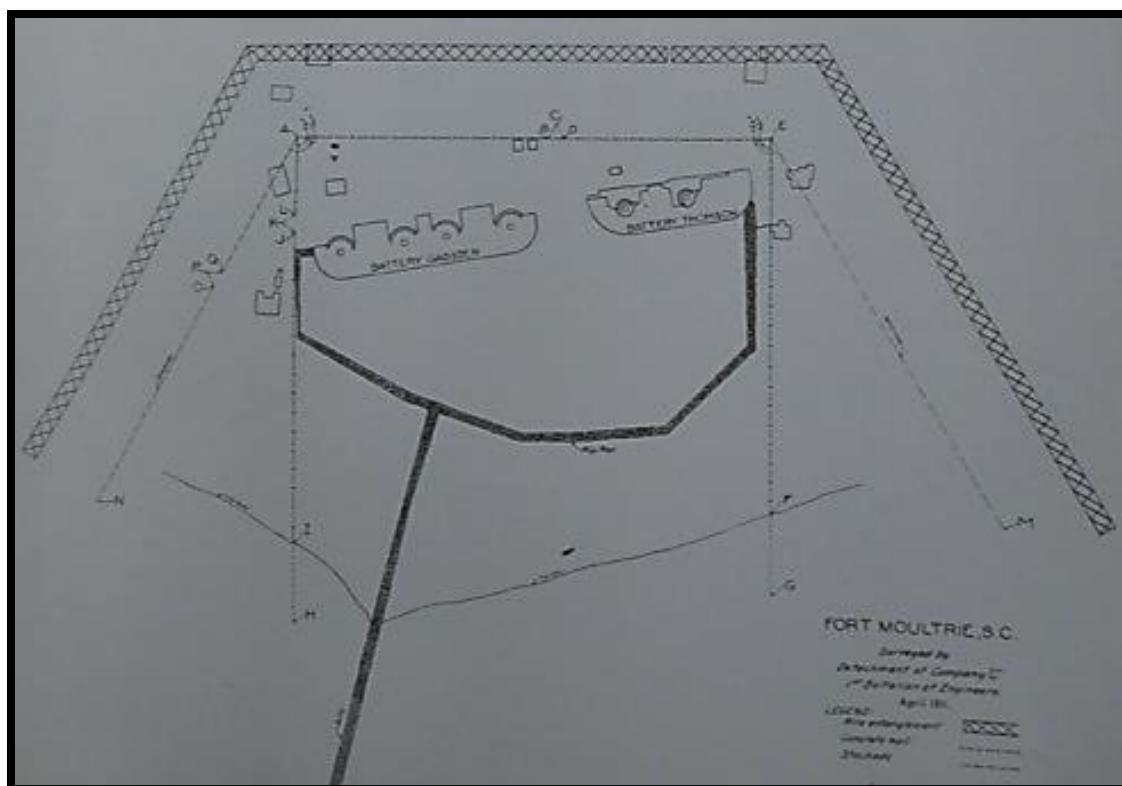


Physical Setting:

Similar to the FMMR's retention of core layout areas during the 1910s, the reservation's environment remained similar to their initial construction with only the accumulation of the one hundred acres of the Marshall Reservation. The new addition's remoteness from most of the island's population and the limited number of searchlight and secondary base end stations constructed resulted in little changes to the native vegetation in the area and no barriers being erected to protect this new area from environmental dangers or human interaction. Instead, FMMR's leadership depended on Marshall Reservation's natural beach dunes to shield the military structures while its soldiers' presence would keep civilians from entering the area. But as the nation prepared to enter the war, the land defenses that would guard the boundaries of the Marshall Reservation and FMMR's Endicott batteries from enemy amphibious landings needed to be reviewed.<sup>87</sup>

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<sup>87</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*



**Figure 3.61: 1911 U.S. Army Corp of Engineer Map of Proposed Fortifications to be constructed around Battery Gadsden and Thomson for local defense. Map shows an encircling system of wire entanglements, wooden stockades, and concrete walled trenches that defending troops could use to defend the batteries from land attacks. Courtesy of the National Archives RG 77-F Chief of Engineers Box 3-4, College Park, MD.**

As America witnessed German militarization and construction of massive border fortifications by the French, the U.S. Army realized their Endicott coastal batteries lacked local defensive protections from enemy ground attacks. Prior attempts to identify how FMMR's land defense would be constructed had started in 1907 with yearly reviews by the post's Coastal Artillery Officers as the base and its armament had expanded. These preliminary plans focused the garrison's defense around Fort Moultrie and Fort Sumter's historic brick and earth rampart walls with additional trenches and obstacles to be erected around the island's unprotected Endicott batteries once war was declared, as seen in Figure 3.61. While FMMR's limited land defense plan was finalized and accepted in

1911 by Brigadier General W.W. Wotherspoon, the president of the U.S. Army's Land Defense Board, it was understood that these strongpoint-oriented defenses required significant reserve forces to construct and guard them once hostilities were declared.<sup>88</sup>

As the U.S. Army monitored the early combat results of World War I's static trench warfare and the technological advancements of machine guns and massed artillery barrages, the nation's limited localized land defenses became increasingly inadequate. In early 1915, the Coastal Artillery Corps ordered all of its reservations to review their defenses and make improvements. Colonel Morris Barroll, FMMR's commanding officer, met with the post's officers and created a broader defensive plan. Approved in late March, their land defense plan encompassed the entire island, with numerous inner and outer fortification lines defended by a regiment of infantry, twelve machine guns, and over twenty assorted field artillery pieces. According to the plan, once hostilities were declared and enemy assault eminent, the outer lines would be constructed on civilian property located on the island's perimeter to prevent enemy forces from successful landings. If these outer defenses were breached, then the garrison would torch all remaining civilian structures and fall back on the inner defensive lines constructed near FMMR's western boundaries and its eastern Endicott batteries near Atlanticville.<sup>89</sup> While FMMR's 1915 land defensive plans were not implemented during World War I because of no immediate German invasion threats, the potential for massive construction of fortifications across the entire island to defend FMMR's external boundaries remained.

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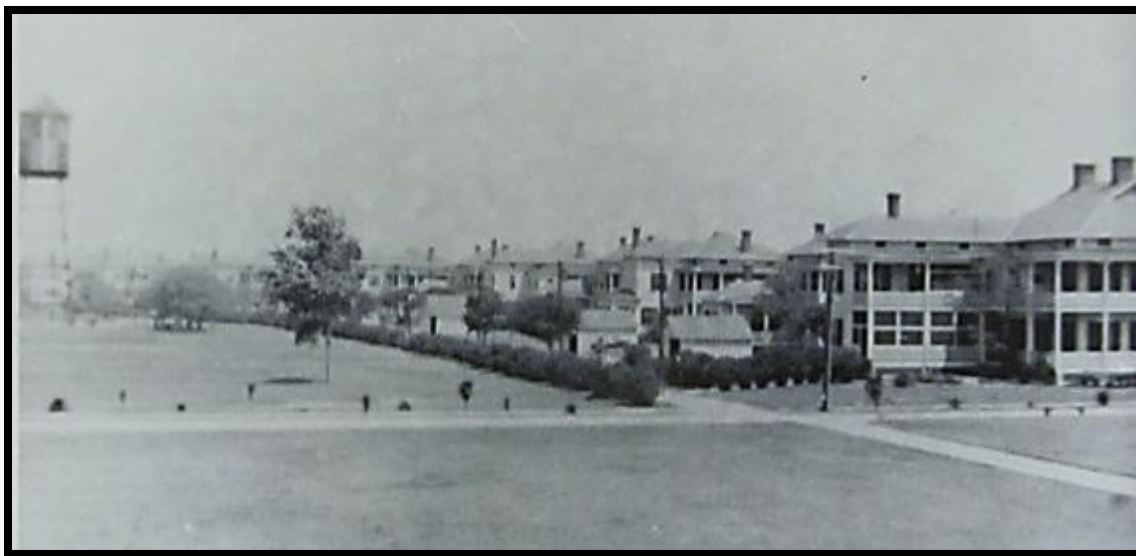
<sup>88</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 75-76.

<sup>89</sup> Ibid, 76-77.



**Figure 3.62: 1940 Quartermasters Corps Photograph of the Post Guard House showing the use of 19<sup>th</sup> century artillery shells as decorations from the 1910s. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 162, College Park, MD.**

While FMMR's military leaders spent significant energy on figuring out how to defend the post's exterior boundaries, the continued habitation and individual ownership of the post's core areas during this period resulted in new ways of delineating different spaces. One of the key methods developed during this period was the marking of FMMR's significant structures and transportation routes with obsolete, nineteenth century shells from old Fort Moultrie's magazines, as seen in Figure 3.62 outside FMMR's Guard House. These various sized black painted iron shells were placed to highlight Sullivan's Island's heritage as an old military landscape and identify its present use as a coastal artillery post.



**Figure 3.63: 1920s Photograph taken by island resident, Woodrow Seagar of the Officer's Quarters, Garages, and Service Road with shrubs and trees planted for privacy and decoration. Courtesy of the Fort Sumter NPS Archives.**

Another method developed by the post's quartermasters and individual families occupying quarters to delineate different areas from each other was the use of plantings. In addition to the original limited number of deciduous trees planted along Middle Avenue during initial construction, significant planting campaigns during this period for privacy and aesthetic reasons provided the only vegetation across the previously barren landscape. FMMR's Quartermasters used a mixture of the ligustrum and oleander bushes along with crape myrtle, sabal palms and young deciduous trees like live oaks and pecans to improve the aesthetic appearance of the reservation's structures. While FMMR's residential areas were the most heavily planted, as seen in Figure 3.63 of the Officer Quarters, similar vegetation was planted to segregate other areas, as internal divisions between the post's land use spaces became increasingly important as the garrison grew to

three thousand soldiers during the late 1910s.<sup>90</sup> As FMMR moved into the post-war period, man-made improvements to FMMR physical setting became significant as an effort to delineate the civilian and military sections of Sullivan's Island.

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<sup>90</sup> *Historic Photograph Files: Ft Moultrie/ Sullivan Island* Fort Sumter National Park.

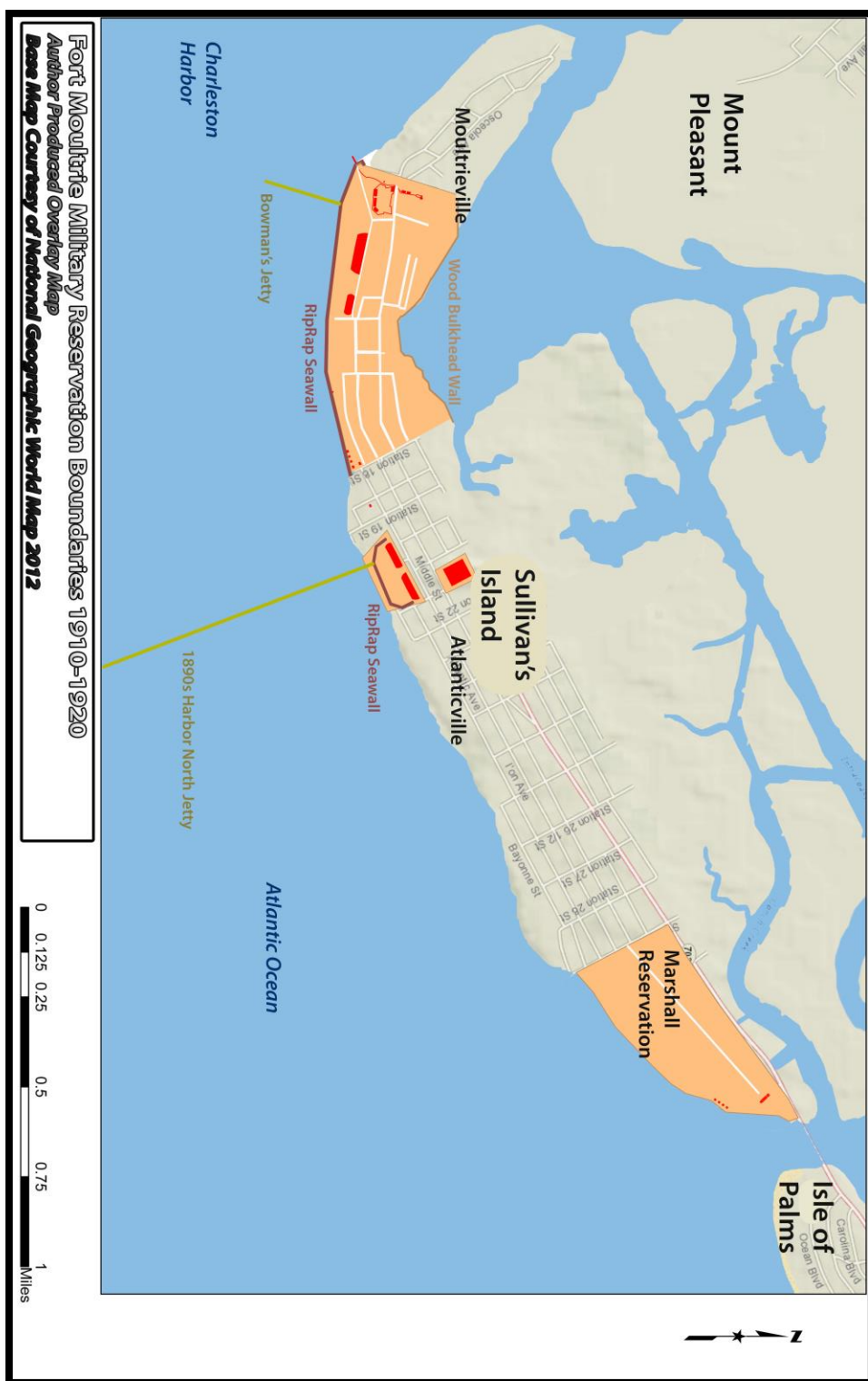
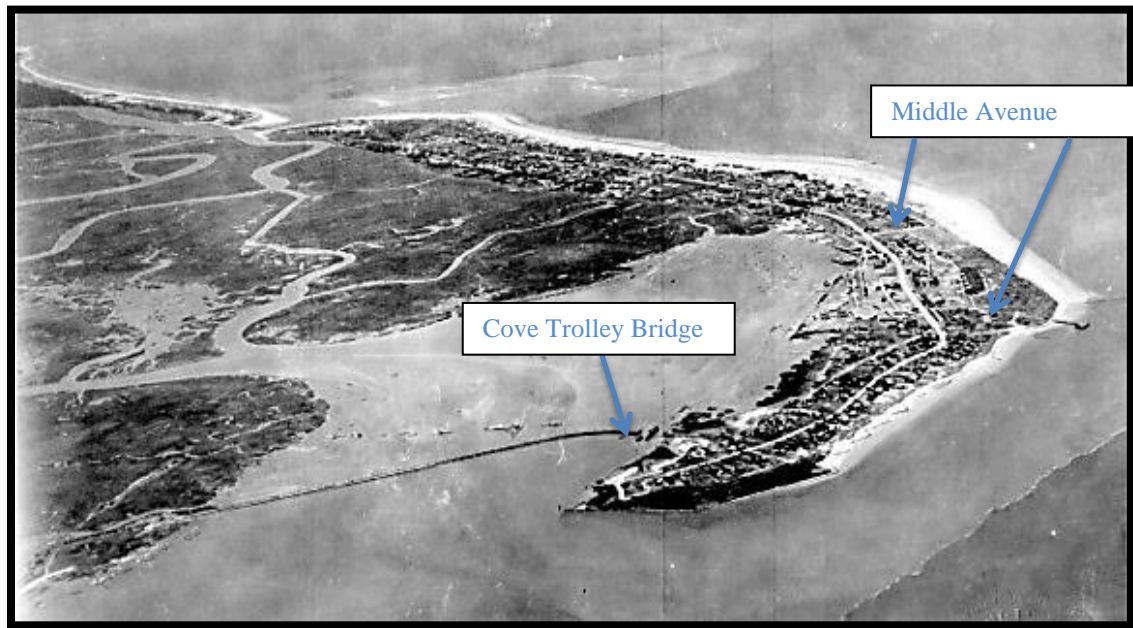


Figure 3.64: FMMR Boundaries and protective measures 1910-1920. Source: author produced GIS/Photoshop basemap.

Circulation Routes/ Post Utilities:



**Figure 3.65: 1920s U.S. Army Air Corp Aerial Photograph of Sullivan's Island western end with Charleston and Seashore Trolley Railroad Bridge across the cove from Mount Pleasant in the foreground. Also highlighted in the earliest aerial photograph taken of the island is the importance of Middle Street as the only way to cross FMMR from Moultrieville to get to Atlanticville. Courtesy of the National Archives RG 77 Chief of Engineers, Box 3, College Park, MD.**

During this period, FMMR's transportation and utilities systems were adequate even though the post's garrison had greatly multiplied in size. The existing network of government boats, electric trolley and animal powered transportation assets used the existing cement gravel roads and small-gauged railroad lines to transport all supplied needed for and around the installation. The modern conveniences of coal heat, running water, and electricity that had been installed with the post's original construction also were adequate with only a few improvements constructed, like hot water heaters' being installed at the Officer's quarters.<sup>91</sup> Overall, the significant modernization efforts

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<sup>91</sup> *Historic Building Record Cards for Fort Moultrie: Building 5-15 Officer's Quarters, Building 16 Bachelor Officers Quarters* (National Archives, Record Group 77; Box 162, College Park, MD)



undertaken by the Post Quartermasters during the post's initial development provided an infrastructure network that ensured a healthy quality of life for its garrison in the 1910s.



**Figure 3.66: 1917 Coastal Artillery Corps FMMR Map showing western end of installation and the new roads built for the cove NCO Quarters. Courtesy of the National Archives RG 92 Quartermaster Corps Blueprints Box 330, College Park, MD.**

As FMMR expanded with the construction of the two sets of Non-commissioned Officers (NCO) quarters, the World War I cantonment area, and the addition of the Marshall Reservation, the Post Quartermasters expanded the existing transportation and utilities networks. In 1914, the first twelve NCO quarters were linked to the existing residential pattern of bracketing housing between a main avenue and a smaller rear service road. This pattern was continued in 1917 when FMMR's western end witnessed the construction of the other set of thirteen NCO quarters and numerous cantonment barracks that were oriented along Middle Avenue as seen in Figure 3.66. While paved

rear service roads were not installed during this 1917 rapid mobilization period, unimproved dirt access roads were utilized by the garrison to support these expanding areas. In addition to providing transportation access to these areas the unpaved roads served as utility corridors for the post's heating, water, and electric systems.<sup>92</sup>



**Figure 3.67: 1917 Coastal Artillery Corps FMMR Map showing the Marshall Reservation and its new crushed shell road built for access to the searchlight and base end stations positions. Courtesy of the National Archives RG 92 Quartermaster Corps Blueprints Box 330, College Park, MD.**

The remoteness of the Marshall Reservation along the sparsely populated northeast end of Sullivan's Island presented significant support challenges. While Sullivan's Island's previously existing network of sandy unimproved roads led to the reservation's southern boundary, and the Charleston and Seashore Electric railroad lines

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<sup>92</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

ran along its western boundary, there were no improved routes to get to the searchlight or base end stations being constructed. To solve this problem, the Post Quartermasters built an eight hundred meters long crushed shell paved road from the northern end of Middle Street at Station 28 to these sites, as seen in Figure 3.67. To supply this remote location's new equipment with electrical power, generators were installed in the searchlight's concrete storage house and additional elevated lines ran to the base end stations erected on the Marshall Reservation beach's dunes. Another important utility for these isolated acquisition and targeting resources was the installation of buried telephone lines that ran along Middle Street back to the large concrete communications bunker in front of the Officer's Quarters that allowed the base end stations to communicate with the Endicott battery commanders.<sup>93</sup> By the end of World War I and the start of the 1920s, FMMR's transportation and utilities had been successful in supporting the expanding requirements while also incorporating newly developed areas into the post's infrastructure.

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<sup>93</sup> *Fortification Construction Plans and Military Reservation Property Surveys, compiled ca. 1895 - ca. 1914, Ft. Moultrie*: Blueprint Group. (National Archives, Record Group 92, Box 360, College Park, MD)



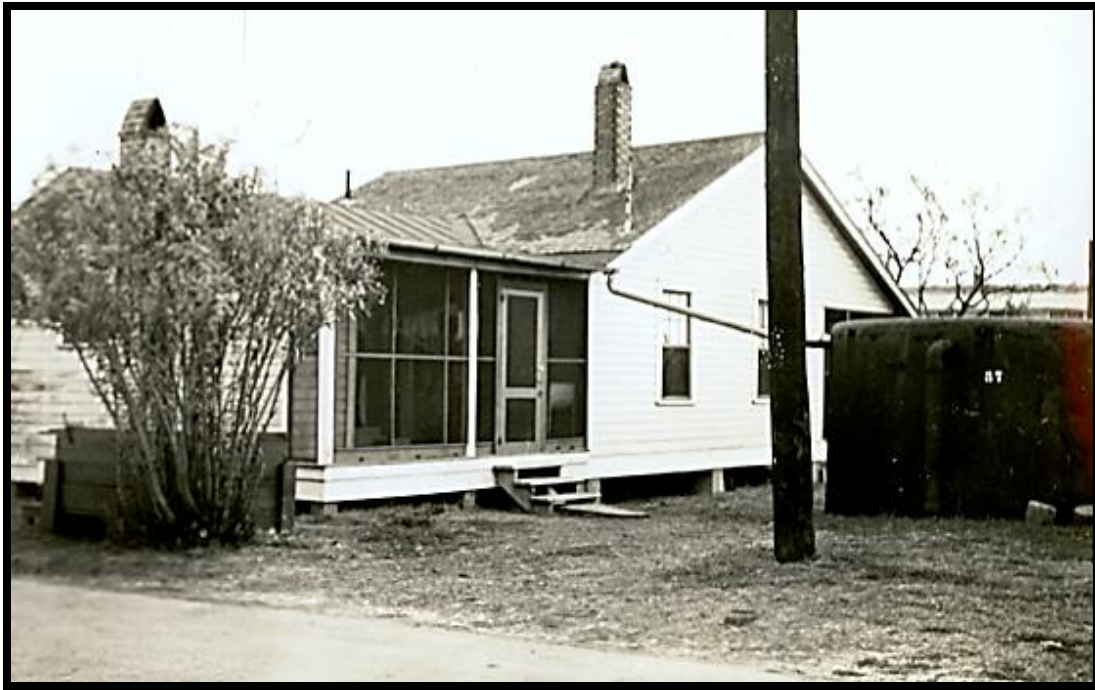
### Structures:

The beginning of FMMR's second period of development saw the continuation of the U.S. Army's earlier policy of building permanent housing for its expanding professional force with all the modern amenities. The last part of the garrison without family housing was the junior Non-commissioned officers (NCO) and enlisted soldiers that had previously lived in remaining nineteenth century beach cottages scattered across the post. As these structures fell into disrepair and lacked access to the post's utilities network, the Post Quartermasters began making plans for new housing for an increasing number of families. This expansion was caused by the swelling number of soldiers, who decided to make a career in the growing Regular Army's Coastal Artillery branch. As pay and living conditions were improved in the 1910s, more soldiers married and had children increasing the post's population.<sup>94</sup>

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<sup>94</sup> Stewart. *American Military History* 390-391.





**Figure 3.69: 1940 Quartermaster Corps Photograph of a Non-commissioned Officers Quarter constructed in 1914 along the FMMR Cove area. Photograph also shows the attached large circular cistern and coal box for the quarter's heating system. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

In 1914, FMMR's Quartermasters constructed a total of twelve junior NCO quarters arranged in a line halfway between Middle Avenue and the Cove adjacent to the Quartermaster Docks. Each individual one story wood framed house provided the NCO and his family with 570 square feet of living space in a parlor, kitchen, two bedrooms, and one bathroom. These quarters were attached to the post's electric, sewage, and running water lines that included exterior cisterns to conserve water. Their primary façades faced the center of the island and had a small avenue placed in front of them with electric streetlamps ending with an intersection at Station 15. To the rear or cove side of these structures, a wider service road provided secondary access to the rest of post by running from Station 15 all the way to the Post Hospital at Station 13. Constructed

cheaply for only \$1,500 when compared to FMMR's other higher-ranking family housing, these twelve quarters were a vast improvement from the nineteenth century cottages previous assigned to junior enlisted soldiers.<sup>95</sup>



**Figure 3.70: 1940 Quartermaster Corps Photograph of a Non-commissioned Officers Quarter constructed in 1918 along Middle Street. Photograph also shows Battery Jasper and the quarter's service road in the background. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

With the addition of FMMR's fourth Regular Army company in 1916 and the increasing number of married junior enlisted soldiers, the Post Quartermaster's needed to expand the number of family quarters as the remaining nineteenth century beach cottages were destroyed for the placement of FMMR's mobilization cantonment area. During the next two years, an additional thirteen NCO quarters were built along the southern edge of

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<sup>95</sup> *Historic Building Record Cards for Fort Moultrie: Buildings 101-112, NCO Quarters* (National Archives, Record Group 77; Box 162, College Park, MD)

Middle Avenue between Station 13 and Station 15. Facing the post's primary transportation route, these one-story 750 square foot wood framed homes were larger than the cove's NCO quarters built four years earlier. All of the post's utilities were connected to these structures through direct connects to the main lines adjacent to Middle Avenue, resulting in no rear service road being constructed during this period.<sup>96</sup> The two 1910s building campaigns of NCO family quarters to support FMMR permanent garrison would be the last major expansion of permanent residential structures built on the reservation. Over the next twenty-five years, most of the remaining structures would be constructed under wartime mobilization construction.



**Figure 3.71: 1940 Quartermaster Corps Photograph of one of the World War I Cantonment two-story barracks constructed in 1918 along Middle Street. Photograph shows the building with a one-story addition bathroom when the barracks was converted into the Camp Headquarters in the 1930s. Courtesy of the National Archives RG 77 Entry 393 Box 163, College Park, MD.**

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<sup>96</sup> *Historic Building Record Cards for Fort Moultrie: Buildings 1001-1014 NCO Quarters* (National Archives, Record Group 77; Box 162, College Park, MD)



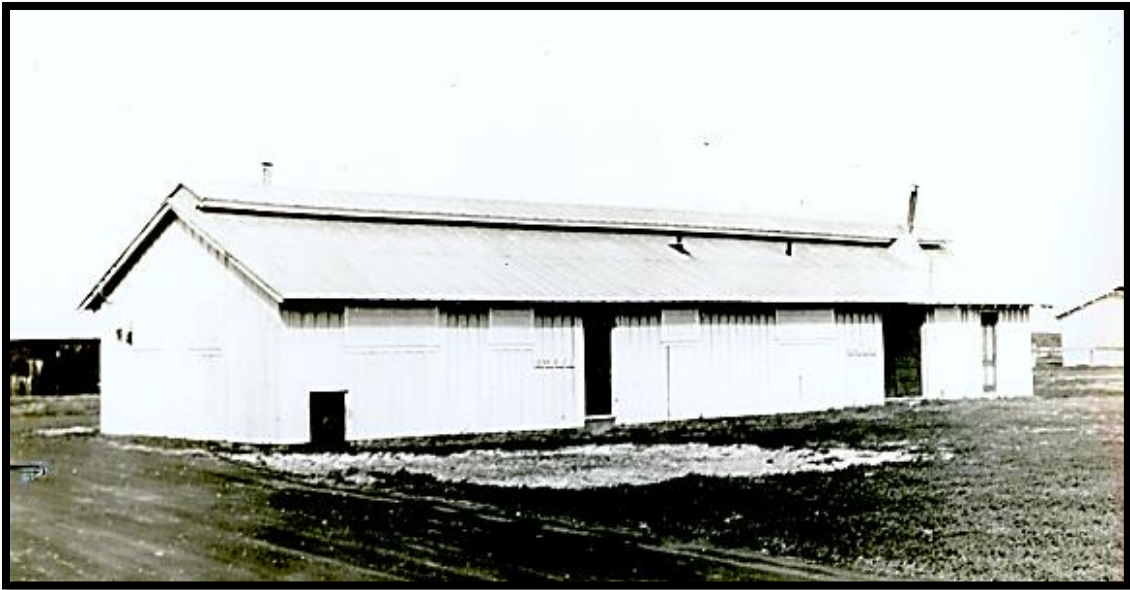
With the United States entrance into World War I in April, 1917, U.S. Army planners needed to be able to quickly construct efficient temporary training camps for the rapidly mobilizing National Guard and Reserve forces that would become part of the American Expeditionary Force being sent to France. The U.S. Army Quartermaster Corps recruited the nation's leading architects, city planners, and construction professionals to assist in designing these 600-series standardized plans for cantonment camps. Their civilian expertise ensured that these plan's water and waste water systems were sanitary to help defeat outbreaks of illness that had crippled the Spanish- American War's mobilization areas. The temporary wood framed structures constructed using these cantonment plans were arranged in gird patterns that would separate individual units while keeping supporting latrines and storehouses on the site's exterior. With the need for rapid construction, the Army Quartermasters contracted with civilians and used unskilled military labor to quickly construct these camps across the nation.<sup>97</sup>

Ordered in late 1917 to provide a cantonment camp for the South Carolina National Guard companies and numerous volunteers reinforcing FMMR's garrison, the Post's Quartermasters selected the open area north of Middle Street adjacent to the Post Hospital for the construction of barracks and supporting structures for over 1,600 soldiers. The largest of these structures were the twenty-seven individual two-story, 3,540 square foot wood framed barracks that are seen in Figure 3.71. Constructed over the winter and spring of 1918, these structures were designed to accommodate a total of sixty-six men each, and were built two feet off the ground on wood block foundations

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<sup>97</sup> U.S. Army Environmental Center. *Context Study* 40-47; Berhow, Eastman and Smith. "Barracks, Bakeries, and Bowling Alleys" 541-542.

supporting two levels of platform framing for open sleeping bays. Due to their temporary construction, no utilities were connected to these barracks, resulting in heating coming from coal potbelly stoves and all interior lighting from the numerous wood framed windows. By the end of April 1918, lines of temporary barracks dominated the western section of the reservation.<sup>98</sup>



**Figure 3.72: 1940 Quartermaster Corps Photograph of one of the two World War I Cantonment latrines constructed to the rear of the barracks built in 1918 along Middle Street. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

To support the mobilization of these units, numerous one-story, 700 square foot latrine buildings shown in Figure 3.72 were constructed to the north of the barracks lining Middle Street. By aligning the latrines in this organized fashion, the amount of utility lines needed to connect them to the post's electric, water, and sewage was reduced. In addition to the latrines, the Post Quartermasters' built eight 1,500 square foot temporary storehouses that were used by the individual Artillery regiments for unit storage, arms

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<sup>98</sup> *Historic Building Record Cards for Fort Moultrie: Building 143-144 Temporary Barracks* (National Archives, Record Group 77; Box 162, College Park, MD)

rooms, and training classrooms. These simple concrete pillar raised foundations, wood framed, elongated structures were rapidly constructed in both the cantonment and Quartermaster Docks areas to assist units making preparations for their upcoming deployment.<sup>99</sup>



**Figure 3.73: 1940 Quartermaster Corps Photograph of a World War I Cantonment storehouse constructed in 1918 to support FMMR units mobilizing for overseas deployment. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

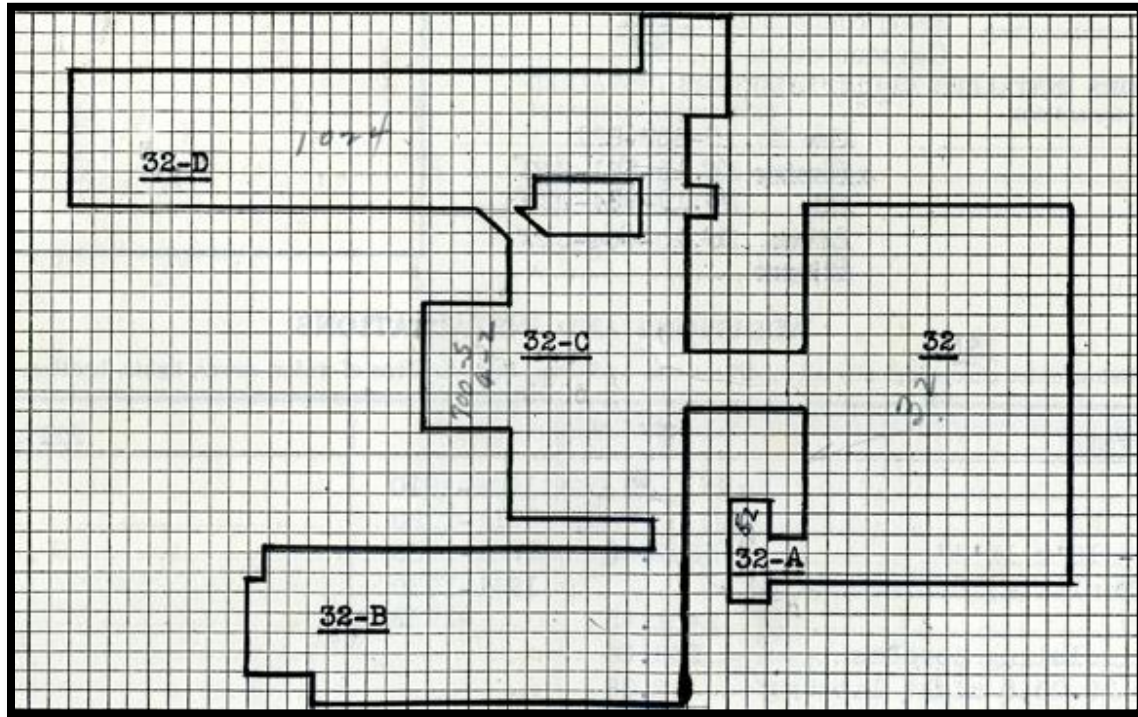
As the number of soldiers assigned to FMMR increased over the remainder of 1918, the post hospital needed to expand its capabilities. In the recent past, FMMR had undergone numerous chronic epidemics, including a 1916 typhoid attack that had affected over one eighth of the post's garrison and completely filled the hospital.<sup>100</sup> In January 1918, the Post Surgeon submitted requests to the U.S. Army's Chief of the Medical Branch for additional temporary medical ward space. Receiving approval, the

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<sup>99</sup> *Historic Building Record Cards for Fort Moultrie: Building 300-D-7-3, 300-D-8-3 Temporary Latrines and Buildings T1025, T1046-T1049 and T-300-S-1, T-300-S-2 Temporary Storehouses* (National Archives, Record Group 77; Box 162, College Park, MD)

<sup>100</sup> *FMMR Post Correspondence, Office of the U.S. Army Chief of Staff 1918-21*

Post Quartermasters constructed three temporary hospital buildings in the summer of 1918 that tripled the hospital's bed capacity as seen in the overall hospital site plan of Figure 3.74.<sup>101</sup>



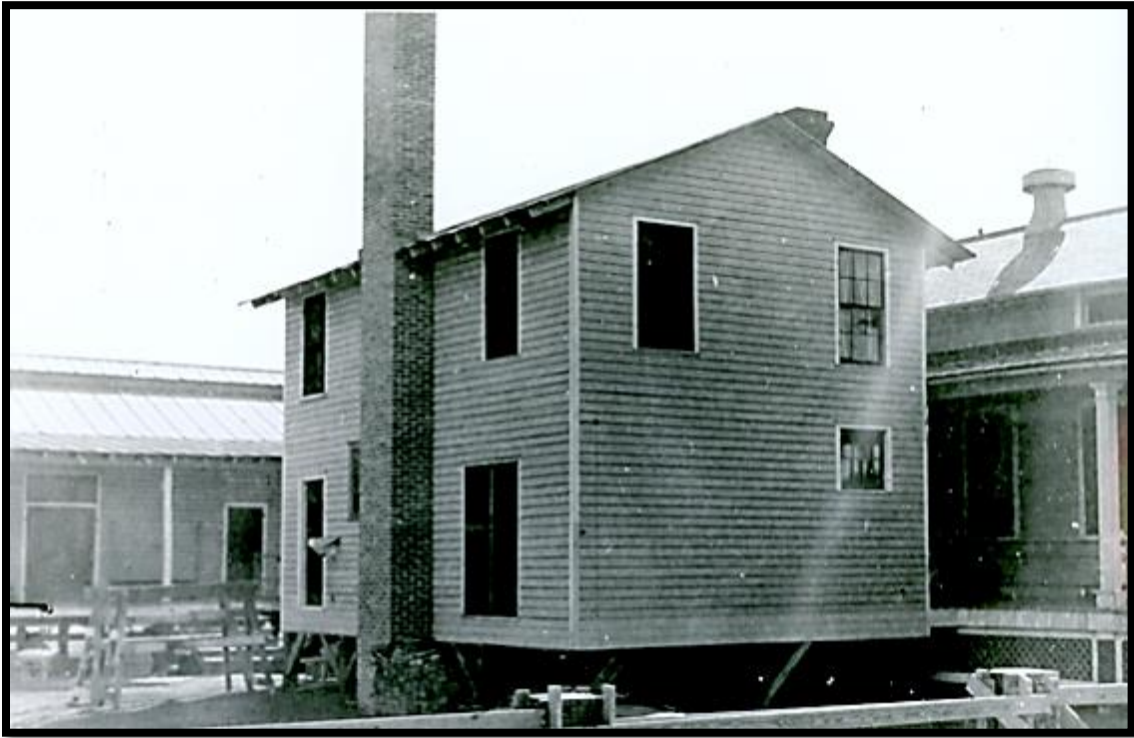
**Figure 3.74: 1940 Quartermaster Corps Blueprint of the three World War I additions (B, C, D) to the Post Hospital Building (32) that greatly increased the hospital's bed space during war mobilization. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

Constructed using U.S. Quartermaster's Corps 600-series plans, these wood frame structures were built on a wood post foundation enabling them to be moved as needed after the war for new uses. The three hospital expansion temporary buildings were linked to the post's electrical, water, and sewage lines to provide modern amenities to the medical facilities that occupied them for only a few months in 1918. With peace declared later that year and the mobilized National Guard garrison quickly returning to their

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<sup>101</sup> *Historic Building Record Cards for Fort Moultrie: Building 34 Post Hospital Additions B-D* (National Archives, Record Group 77; Box 162, College Park, MD)

civilian lives, the hospital staff was reduced and the overflow hospital buildings were vacated awaiting deconstruction or possible reuse elsewhere on the post.<sup>102</sup>



**Figure 3.75: 1940 Quartermaster Corps Photograph of the two-story Storehouse built in 1918 to the rear of the Post Hospital. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

The rapid growth of FMMR during the First World War had expanded the original Endicott era planned landscape with modernized improvements to the coastal artillery armament. The responsibility of providing temporary cantonment areas for mobilizing National Guard units and other reserve coastal artillery regiments preparing for overseas deployment created the infrastructure for this additional training mission to continue during the post-war period. Also, as the FMMR permanent garrison became more stabilized during this period, their ownership of the installation resulted in

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<sup>102</sup> *Ibid.*

significant improvements like artillery shell markers and uniformed plantings that furthered identified the site as a military landscape. As FMMR and the rest of Sullivan’s Island returned to normal during the 1920s, the shrinking Coastal Artillery garrison would improve the appearance of the installation as the landscape evolved to accommodate the new training mission.

### FMMR Second Period of Development Timeline

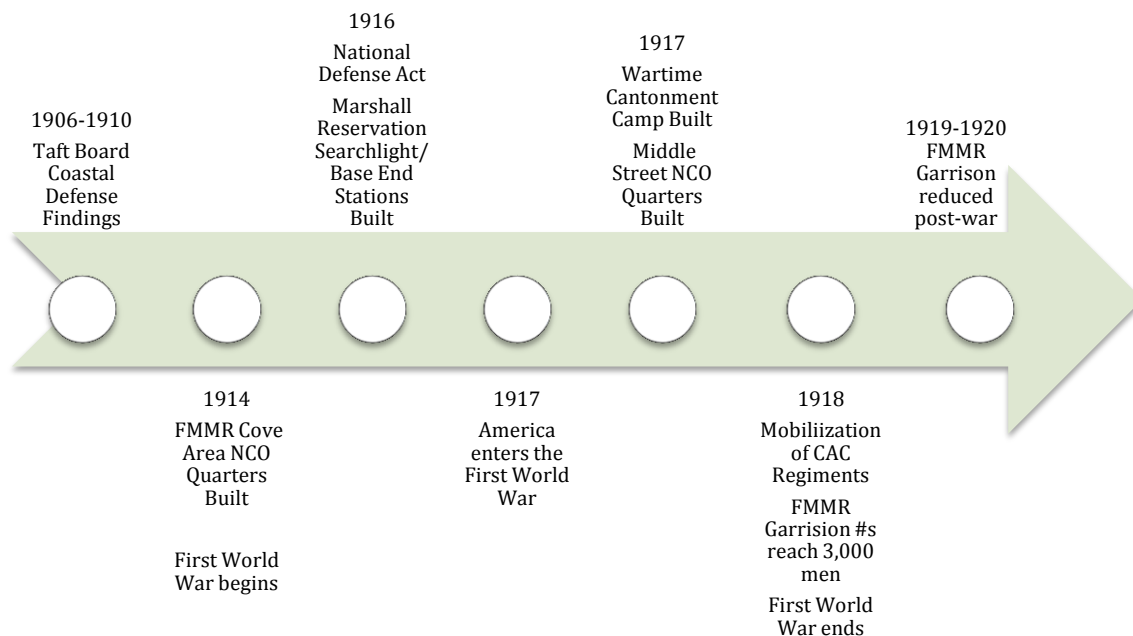






Figure 3.76: FMMR Structures constructed from 1910-1920s. Source: author produced GIS/Photoshop basemap.

### 3<sup>rd</sup> Period of Development: 1920-1933:

#### Restructuring in the Inter-War Years

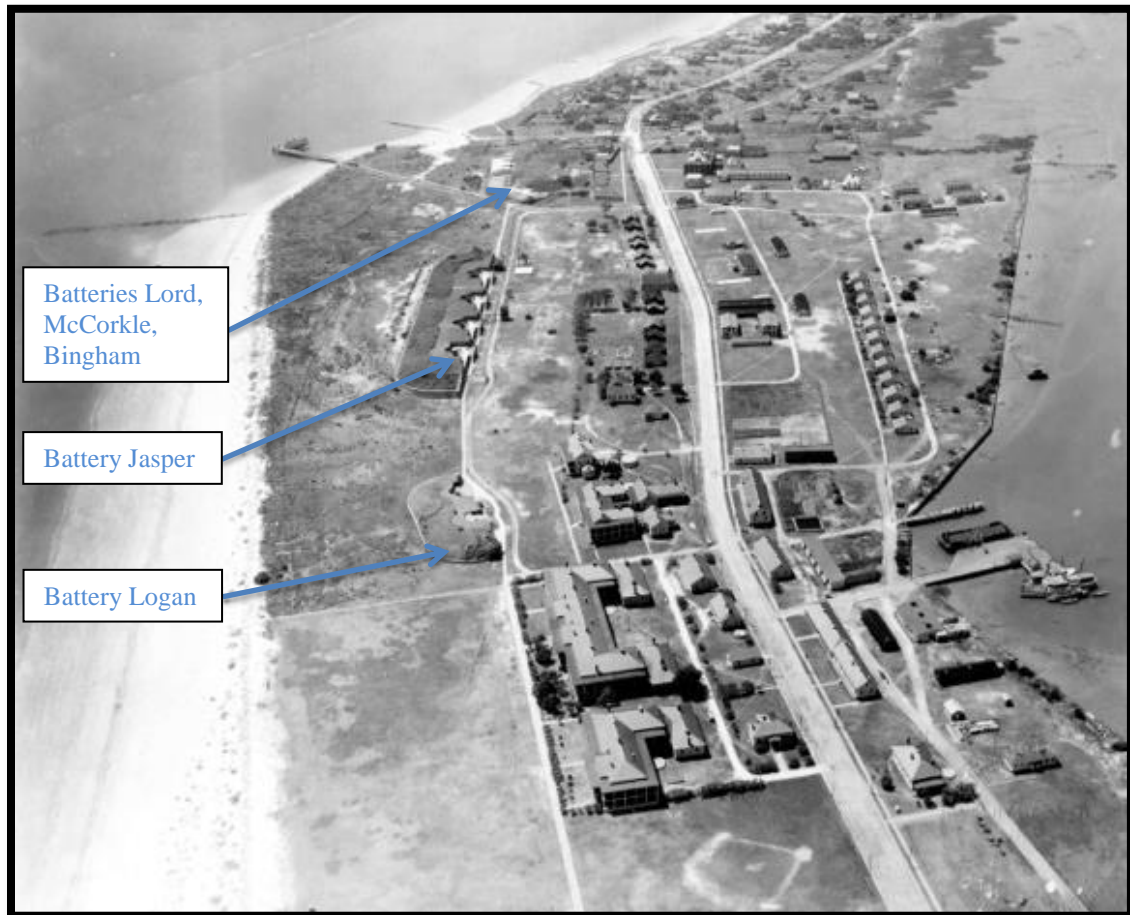
##### Military Mission:

At the end of the First World War, FMMR's remaining four Regular Army Coastal Artillery companies had steadily decreased as the U.S. military discharged excess troops reducing their strength to required peacetime levels. Faced with the new 1920s war weary national defense policy of maintaining a small standing army that could be reinforced with Reserve forces, the U.S. Army had to provide supervisory control over both of these forces while continuing to modernize itself by reducing obsolete infrastructure and equipment. Tasked with providing facilities for the annual training requirements of the newly structured civilian reserve forces, the U.S. Army converted remaining installations in the 1920s to support these new missions. Retained due to its importance to Charleston's harbor defenses, FMMR was selected during the military's transitional interwar period to continue its coastal defense mission while transforming the installation into a training center to support local states' Reserve and National Guard forces.

FMMR's post-war reduced garrison of fewer than one hundred soldiers in 1920 was undermanned for these changes, as it was responsible for maintaining the entire installation that only a few years before a force of three thousand men defended. As a result, the remaining garrison sought methods of reducing their requirements like receiving permission to sell off the cove's temporary cantonment camp structures for



salvage. This effort was carried out in 1920-1921 with only a few of the World War I temporary buildings being converted for new uses along with a few of the latrines' concrete foundations remaining as seen in Figure 3.77.<sup>103</sup>



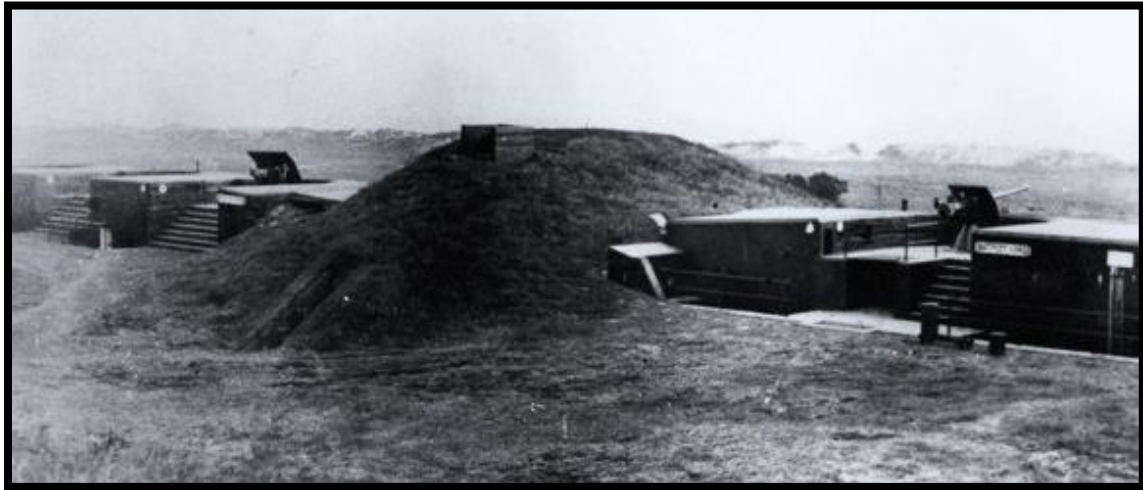
**Figure 3.77: 1924 U.S. Army Air Corp Aerial Photograph of FMMR's western end of the installation showing the removal of the majority of the World War I Cantonment Camp in the upper right of the image. Courtesy of the National Archives, RG 342, Entry FH, Still Photos Branch, College Park, MD.**

Another method of reducing the garrison's maintenance requirements during this lean post-war period was the reduction of FMMR's outdated Endicott armaments. This effort had begun prior to the war with the removal of one, 6-inch Armstrong pedestal

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<sup>103</sup> *Fort Moultrie Post Correspondence 1918-1921: Office of the Chief of Staff*; Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 83-84.

mounted gun at Battery Logan in the 1910s, leaving only the remaining six-inch rifled gun on its disappearing carriage in this massive concrete fortification. It continued during the war in 1917 when Battery Gadsden's four, 6-inch guns that had only been installed eleven years earlier were removed and sent with the American Expeditionary Force to France. After the war, Battery Gadsden remained unarmed as its guns were sent to other continental coastal defense fortifications. Additionally, both Battery McCorkle's three, 3-inch rapid-fire guns and Battery Bingham's two, 4.7-inch Armstrong guns were declared obsolete by the war's end and were removed during the U.S. Army's 1920 disarmament program to reduce its operating costs. These downsizing efforts resulted in the post's shrinking garrison being spread thinly across the remaining six batteries of Capron/Butler, Jasper, Huger, Lord, Logan, and Thomson by 1922.<sup>104</sup>



**Figure 3.78: 1920s U.S. Army Photograph of Battery Lord (on the right) and the Battery McCorkle (on the left). One of Battery McCorkle's 3-inch rapid-fire guns remains while the other two have been removed in the early 1920s due to U.S. Army disarmament policies. Courtesy of the Fort Sumter NPS Archives.**

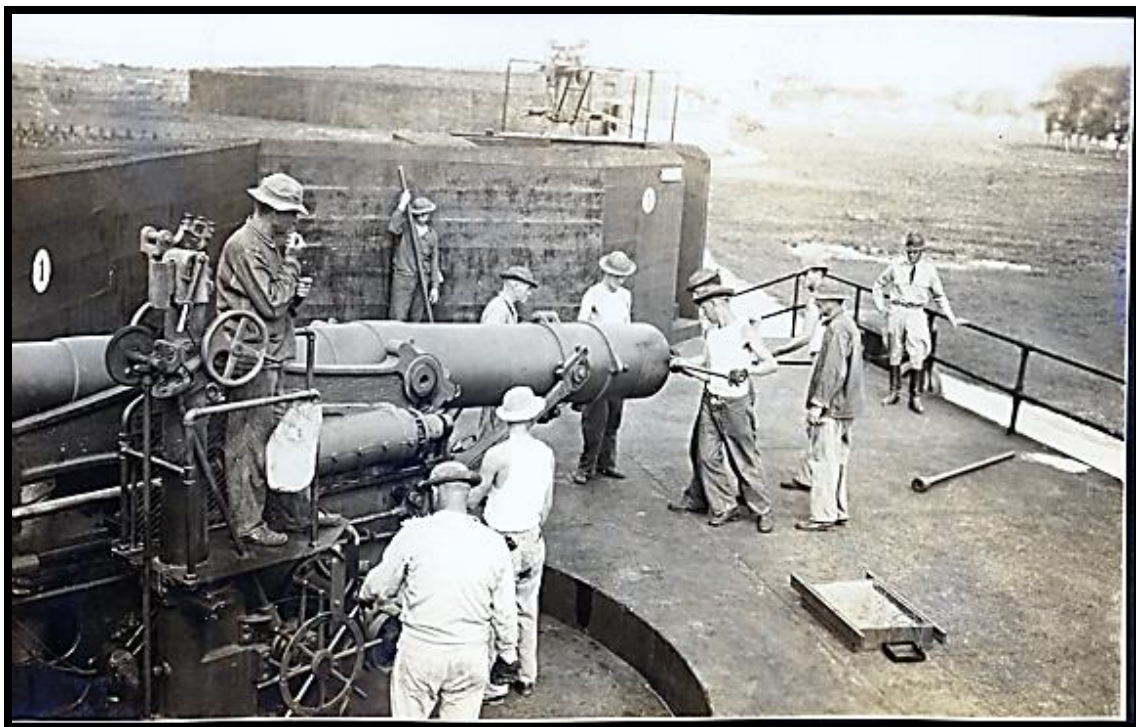
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<sup>104</sup> *Reports of Completed Batteries: FMMR 1910-1920s Office of the Chief of Engineers* (National Archives, Record Group 77, Box 162,163, Textual Archives Services Division, College Park, MD)

Needing to reorganize its smaller peacetime garrisons into adaptable and re-locatable units from their pre-war designation of individual harbor's defenses, the CAC in 1922 returned their units to their pre-1916 individual number designations. As a result, FMMR's remaining Regular Army soldiers were designated the 170<sup>th</sup> Company, CAC with two, inactive Regular Army companies, the 145<sup>th</sup> and 180<sup>th</sup> without troops or equipment. This reorganization was short-lived, because in 1924, the Coastal Artillery Corps again changed by organizing their individual companies into batteries under a total of sixteen harbor defense regiments to conform to the U.S. Army's Regimental System. The southeastern United States' coast from Charleston to Galveston, Texas was designated the 13<sup>th</sup> Coast Artillery Regiment, headquartered out of Fort Barrancas, near Pensacola, Florida. FMMR's 170<sup>th</sup> Company became part of this command and was designated as Battery D, while its inactive components was changed to Battery K of the 13<sup>th</sup> CA Regiment.<sup>105</sup>

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<sup>105</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 84-85.



**Figure 3.79: 1932 U.S. Army Photograph of Battery D, 13<sup>th</sup> CA drilling on the remaining six-inch rifled gun on disappearing carriage at Battery Logan. Courtesy of the National Archives, RG 338, Box 88, Records Concerning Posts, Camps, and Stations 1917-1948, College Park, MD.**

While the 1924 reorganization assisted in reducing the number of Coastal Artillery units and creating a clearer chain of command, it also brought additional requirements that would stretch FMMR's garrison to the limit. The first requirement resulted in Battery D being responsible for maintaining coastal fortifications at Fort Fremont near Beaufort, South Carolina and Fort Screven near Savannah, Georgia. While Fort Fremont was quickly decommissioned in the early 1920s, Battery D was required to maintain a small caretaker force at Fort Screven into the 1940s, further reducing the remaining FMMR garrison during this period.<sup>106</sup>

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<sup>106</sup> Ibid, 84.



**Figure 3.80: 1929 U.S. Army Air Corp Aerial Photograph looking east towards FMMR's from Sullivan's Island western tip. Image shows the replacement of the World War I Cantonment Camp with the new National Guard Camp occupying the same area. Courtesy of the National Archives, RG 342, Entry FH, Still Photos Branch, College Park, MD.**

Battery D's second requirement from the 1924 reorganization was far more time and manpower consuming as it became the facilitating unit for numerous National Guard and other civilian-military units that used FMMR during their annual training exercises. Required to provide instructors and maintain a new National Guard training camp area that was constructed during 1926-27, FMMR's Coastal Artillery garrison stayed busy preparing for and executing scheduled training. During this period, four different National Guard units, the 252<sup>th</sup> CA Regiment from North Carolina, the 264<sup>th</sup> CA Regiment from Georgia, the 265<sup>th</sup> CA Regiment from Florida, and the 263<sup>rd</sup> CA Regiment from South Carolina, each executed annual two-week training exercises using



FMMR's remaining armament and new tractor-drawn mobile 155mm guns to train their Guardsmen on their wartime coastal artillery duties. Additionally, when the National Guard Camp was available, the recently formed Reserve Officer Training Corps classes and the Citizen's Military Training Camps completed numerous annual training exercises to introduce local states' young men to military life.<sup>107</sup> By the mid-1920s, FMMR had once again become a busy installation with units rapidly arriving, training, and departing, while its tiny active duty Coastal Artillery garrison, barely occupying one of post's permanent barracks, struggled to maintain its wartime abilities to defend Charleston.



**Figure 3.81: 1931 U.S. Army Photograph of the 252th Coastal Artillery North Carolina National Guard Regiment training on their tractor drawn 155mm mobile guns in front of Battery Jasper. Courtesy of the Fort Sumter NPS Archives.**

During this period, the U.S. Army recognized FMMR's availability of permanent barrack space, assigning first a battalion and then the regimental headquarters of the historic Eighth U.S. Infantry Regiment to Sullivan's Island. These few hundreds of additional Regular Army soldiers were well received both by FMMR's Coastal Artillery garrison and Charleston public for various reasons. Their arrival during the beginning of

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<sup>107</sup> Stokeley. *Constant Defender* 86-88; Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 84-85.

the Reserves' training mission assisted Battery D by providing instructors of basic soldier skills like marching and marksmanship. They also assisted with maintaining core areas like the parade grounds while erecting new infantry training areas like the Marshall Reservation's rifle range. In addition to these military duties, the 2<sup>nd</sup> Battalion, Eighth U.S. Infantry was praised by its local Charleston community for its regular participation in local holiday parades while also providing military reviews and concerts for island visitors. Assigned to FMMR throughout the interwar period, this combination of infantry and coastal artillery units spread the post's defensive requirements, created an increasing amount of installation pride, and gratefulness for the military contribution to the island's economy during the nation's Great Depression.<sup>108</sup>



**Figure 3.82: 1936 U.S. Army Photograph of the 2<sup>nd</sup> Battalion, 8<sup>th</sup> Infantry Regiment on FMMR's parade grounds in front of their barracks. Courtesy of the Fort Sumter NPS Archives.**

While the nation dealt with its financial downfall in the late 1920s and early 1930s, the U.S. Army received limited funding for maintaining its peacetime forces and could spare little for coastal defense improvements. Surprisingly, FMMR's caretaker garrison did receive funds to build new battery commander stations atop Battery Jasper

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<sup>108</sup> *Souvenir of Charleston, S.C., America's Most Historic City: Souvenir Program for a U.S. Navy Port Call* Charleston, SC: 1925; Stokeley. *Constant Defender* 86-90; Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 85.

and Battery Huger, while also getting approval to correct the base rings of Huger's twelve-inch guns that had been out of level. These minor improvements resulted in a 1933 FMMR's Officer review of its harbor defense plans that recommended the further reduction of the post's armament by disarming both Battery Logan and Jasper as soon as funding could be made available for their removal. The Thirteenth CA Regiment approved the 1933 defensive plan that in the future Charleston's harbor would be defended with Battery Capron/Butler's mortars, Battery Huger's 12-inch guns, Battery Thompson's 10-inch guns, Battery Lord's 3-inch rapid-fire guns, and a mobile battery of four, 155mm guns. Additionally, this plan recognized that FMMR's small Battery D, Thirteenth CA was unable to man these five different fortifications so, if war was declared, Battery K, Thirteenth CA would be activated along with the South Carolina National Guard's 263<sup>rd</sup> Coastal Artillery Regiment mobilized to fill any shortages in the post's defenses.<sup>109</sup> The nation's isolationist interwar period had resulted in significant reductions to FMMR's original Endicott armament and coastal artillery garrison at the same time that numerous additional training missions caused significant military personnel increases that further altered the installation's landscape.

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<sup>109</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 85.



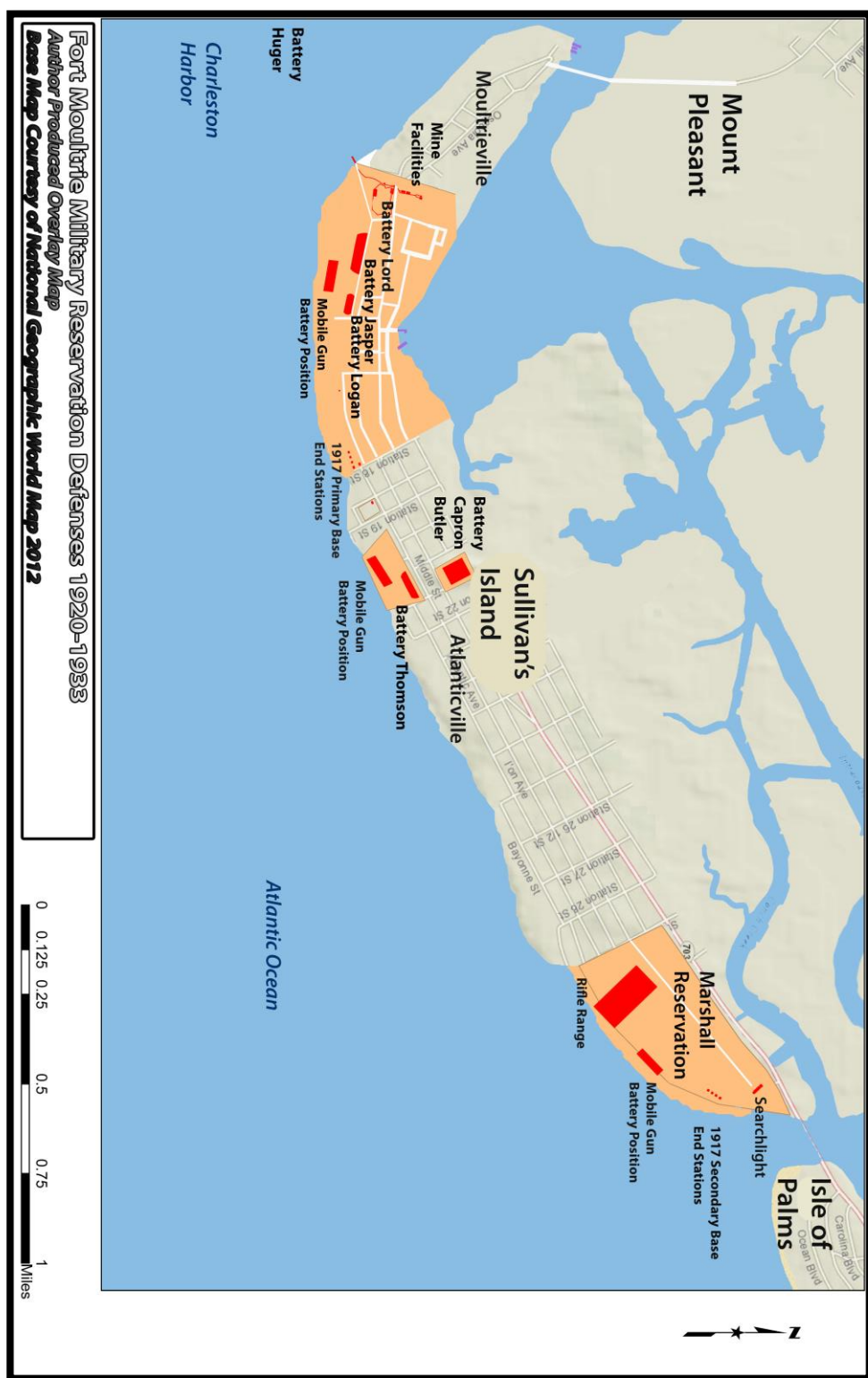
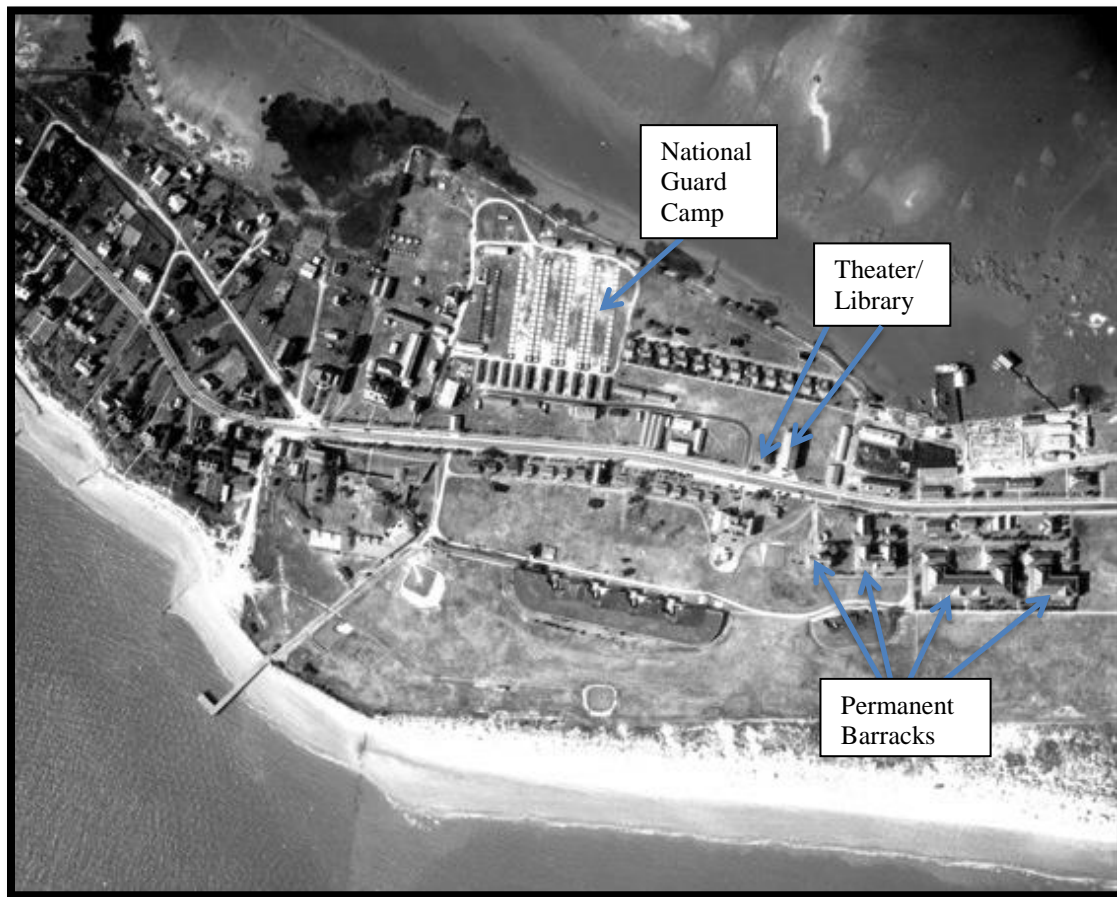


Figure 3.83: FMMR Coastal Artillery Corps Defenses: 1920-1933. Source: author produced GIS/Photoshop basemap.

### Spatial Organization:



**Figure 3.84: 1928 U.S. Army Air Corp Aerial Photograph looking down at the western part of the installation. Image shows the new National Guard Camp and the construction of the recreational resources of a new Post Theater and Library between the Camp and the post's permanent barracks. Courtesy of the National Archives, RG 342, Entry FH, Still Photos Branch, College Park, MD.**

The emergence of new military training missions and changes to its Regular Army Garrison created noticeable adjustments to FMMR's layout during the 1920s and into the 1930s. These changes commenced with Congress passing the 1920 National Defense Act that formally created the three components of the United States Army- the Regular professional army, the states' National Guard and Organized Reserves. Now responsible for providing training to each of these components, the U.S. Army started to construct training facilities on existing installations. In 1926, Congress passed Public

Law 45 authorizing the military to sell excess property in order to grow its construction fund for building National Guard training camps while also providing improved permanent structures on its remaining installations.<sup>110</sup> FMMR received appropriations from the U.S. Army construction fund over the next few years to build a new National Guard camp for fifteen hundred soldiers located on the site of the recently salvaged World War I cantonment camp. Completed in 1927, the orientation of the new National Guard camp was changed from the previous focus on Middle Street to a central grid pattern of tents organized with supporting latrines and mess halls on its perimeter, all of which were located in the center of the Cove camp area. The removal of the camp's orientation from the post's busiest transportation route can be viewed as maintaining its lower military hierarchy than the rest of the Regular Army installation and desire to move these temporary training support facilities away from the permanent Regular Army garrison's NCO quarters.<sup>111</sup>

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<sup>110</sup> U.S. Army Environmental Center. *Context Study* 47-48.

<sup>111</sup> *Historic Photograph Files: Ft Moultrie/ Sullivan Island*. Fort Sumter National Park; *Historic Building Record Cards for Fort Moultrie: NG Camp Buildings* (National Archives, RG 77; Box 162, College Park, MD)



**Figure 3.85: 1930s Photograph taken by island resident, Mr. Carts of Small Arms firing range established in front of Battery Logan. Image shows soldiers firing at targets arrayed along the front beach's sand dunes. Courtesy of the Fort Sumter NPS Archives.**

In addition to the camp area required to house and feed the Reserve forces, the post expanded its training areas to provide space for these units to conduct their annual training requirements. While a significant portion of the National Guard units' training focused on conducting gun drills on the remaining FMMR's coastal defense armaments, the remainder of the Guard's and other civilian military camps' training needed larger areas to teach basic marksmanship and infantry combat formations. Marshall Reservation and the sea dune areas in front of FMMR's Endicott batteries became the post's main training areas with the erection of small arms firing ranges and mobile 155mm gun battery positions. From these locations, the training unit could safely conduct live fire exercises that would keep errant rounds out to sea as seen in both Figures 3.85 and 3.86.

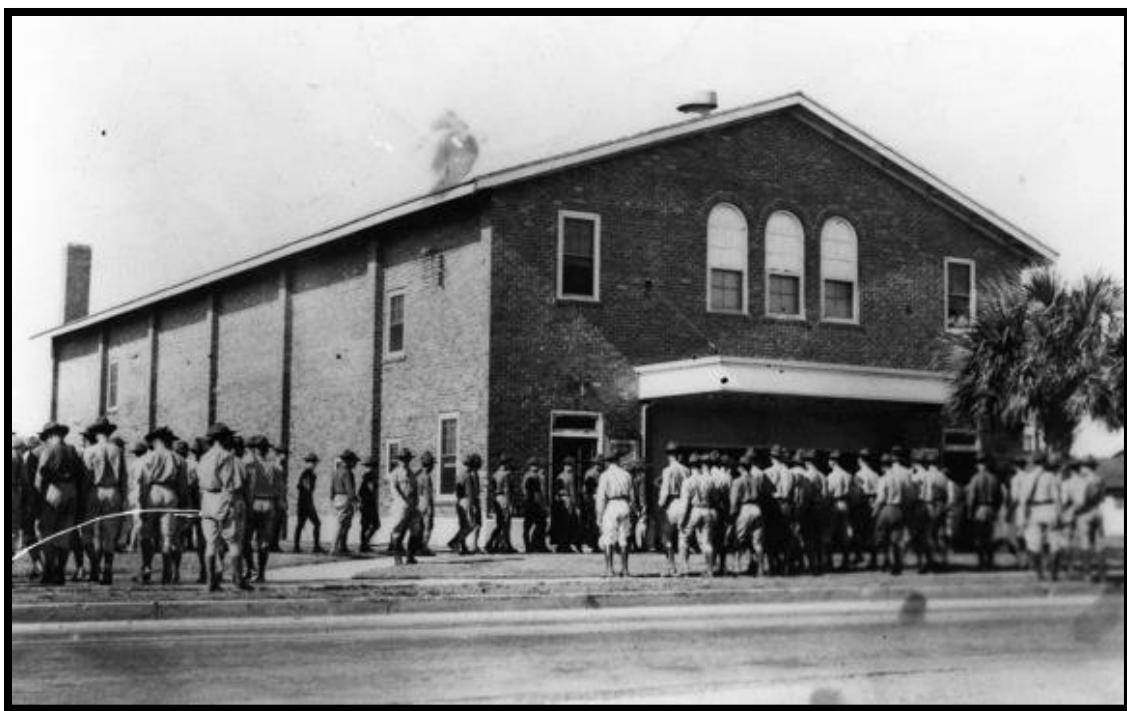


**Figure 3.86: 1930s U.S. Army Photograph of Battery B, 263<sup>rd</sup> Coastal Artillery South Carolina National Guard Regiment's camouflaged mobile 155mm gun positions on Marshall Reservation's sand dunes. Courtesy of the Fort Sumter NPS Archives.**

Additionally, these training areas were also placed on the exterior of FMMR's core operational and support areas to keep them from affecting both the normal day military and civilian life on Sullivan's Island.<sup>112</sup> As the annual Reserve training mission and the arrival of the Eighth U.S. Infantry Regiment steadily increased the number of soldiers assigned to FMMR, additional recreational facilities were needed to provide entertainment and relaxation during their limited off-duty hours.

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<sup>112</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*



**Figure 3.87: 1930s U.S. Army Photograph of Post Theater with troops lined up to view a motion picture show. Courtesy of the Fort Sumter NPS Archives.**

During this interwar period, one segment of the U.S. Army's Construction fund was used to build or upgrade recreational facilities at many of the Regular Army installations that now were tasked with additional reserve-training missions. In order to provide these entertainment resources to both FMMR's regular army garrison and their temporary reserve force guests, the Post Quartermasters reinforced the YMCA centralized area along Middle Avenue. Located across the street from this socializing focus of the existing post, the post theater and library were erected from 1929 to 1931, further enhancing this area's ability to entertain the garrison. During the same building campaign, the Post Quartermasters' constructed a new officer's club in front of the senior officer's quarters in the northeastern part of the installation. Respecting the military hierarchy of keeping officer and enlisted recreational facilities separated, Jasper Hall- the

name of the new officer's club- was placed in front of the 1900s riprap sea wall, where significant accrued sand beach had expanded the island and the installation over the past few decades.<sup>113</sup> Both of these expanded recreational areas constructed during this interwar period, further developed unused areas in the main post, while creating specific spaces for different ranks to relax in close proximity to their living quarters.

The interwar years between the two World Wars resulted in significant alterations to FMMR's overall spatial layout as seen in Figure 3.88. First, the conversion of the cove area's First World War temporary wood barracks complex into a larger National Guard camp area provided an area for Guardsmen to train for their wartime responsibilities while segregated from the rest of the installation. Second, the need to construct training areas for these training units resulted in the creation of firing ranges and mobile gun firing positions along the exterior of the main post, the Marshall Reservation, and Battery Gadsden/Thomson area. Finally, the immediate success of FMMR's new training mission caused a shortage in recreational facilities for the numbers of permanent and visiting troops, causing the post's Quartermasters to expand the installation's pre-existing entertainment area along Middle Avenue. Even with all of these additions during this transition period, the FMMR's original planned urban landscape that emphasized the parade ground as the center of the installation was maintained. The exposure of FMMR's modern military community, organized according to this period's contemporary urban planning ideas, gave thousands of visiting Reservists and Guardsmen an example of how their own municipalities could be improved.

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<sup>113</sup> *Ibid.*





Figure 3.88: Spatial Layout of FMMR land use areas 1920-1933. Source: author produced GIS/Photoshop basemap.



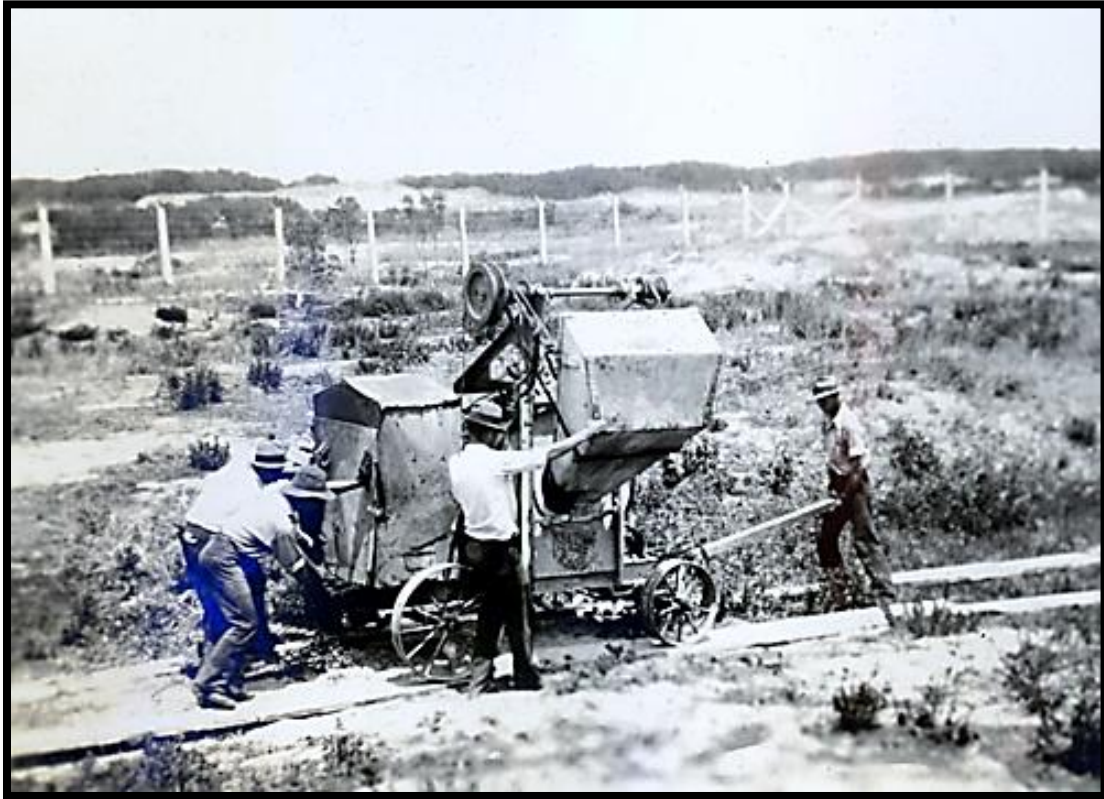
Physical Setting:



**Figure 3.89: 1930s Photograph of FMMR's western entrance along Middle Street. Image shows one of four obsolete 9.2-inch WWI siege howitzers installed as ornamental welcoming pieces. Courtesy of the Fort Sumter NPS Archives.**

With the increasing number of new soldiers arriving for training and the continued enlargement of civilian development on Sullivan's Island during the prosperous 1920s, the post's leadership developed new ways of identifying the reservation's boundaries to these new arrivals. In an effort to reinforce both the western and eastern main post entrances along Middle Avenue, the Post Quartermasters installed four, 9.2-inch World War I siege howitzers that had been unused since 1918. Positioning one on each side of the island's main thoroughfare as it entered the reservation, these massive guns weighing thirty-five tons each, immediately identified the

military reservation to anyone traveling across Sullivan's Island.<sup>114</sup> While the dominating presence of these guns reinforced the main post's previously existing boundaries, other improvements focused on notifying residents of new military areas that were deadly if trespassed on.



**Figure 3.90: 1932 Photograph of civilian workers moving a concrete mixer to construct additional base end stations on Marshall Reservation. In the background of the image is the barbed wire fence placed around the reservation to prevent civilians from entering its dangerous live fire training areas. Courtesy of the National Archives, RG 133 Post Corresp, Box 88, College Park, MD.**

The construction of an active rifle range and mobile battery positions inside the one hundred acres of the Marshall Reservation resulted in the immediate requirement of establishing a boundary to keep wandering civilians from harm. During the late 1920s, a six-foot high barbed wire security fence was installed adjacent to the reservation's land

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<sup>114</sup> *Fort Moultrie Post Correspondence and Photographs 1918-1933: Office of the Chief of Staff* (National Archives, Record Group 165; Box 116, Textual Archives Services Division, College Park, MD)

exterior boundaries for this purpose. Its multiple lines of strung barbed wire between supporting, square, wood posts, placed every ten feet, clearly identified that the barren scrub landscape of Sullivan's Island northern end should not be entered. Additionally, the Post Quartermasters installed signs along the reservation's fence and beach areas, further identifying it as military land and dangerous to enter.<sup>115</sup> The construction of Marshall Reservation boundary during this period was significant since it was the first time that the island's military leaders had to provide a physical barrier to keep island residents from wandering into the island's military areas. Before the creation of the firing ranges' danger areas, civilians were allowed to traverse the military reservation more freely since the firing of the installation's larger armaments was a controlled scheduled event and the civilian-military cooperative understanding of different areas of the island was never a problem.

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<sup>115</sup> *Ibid.*



**Figure 3.91: 1933 U.S. Army Air Corp Aerial Photograph looking down at the eastern part of the installation. Image shows the expansion of the island's beach due to the harbor's jetties after twenty years since their installation and the creation of new dunes forward of the post's original stone riprap seawall. Courtesy of the National Archives, RG 342, Entry FH, Still Photos Branch, College Park, MD.**

Another change to the inter-war period's installations boundaries was the expansion of land on Sullivan's Island front beach because of the accrual of sand on the coast. This increasing amount of usable space was the result of the late nineteenth century U.S. Army Corps of Engineers improvements of the harbor's stone jetties along with FMMR's construction of the stone boulder and timber sea wall. While this wall's main purpose was to protect the installation from storm surges, it had stabilized the erosion on this part of the island's coast and created a foundation for a new line of beach dunes. As sand started to build around this foundation, numerous species of vegetation like sea oats, pennyworts, and sandspurs flourished in this windswept environment. Over

the next few decades as Sullivan's Island seashore continued to expand, the FMMR seawall dunes became increasingly larger as additional deposits of sand enlarged their size and vegetation thrived.<sup>116</sup>

With the beach in front of the wall continuing to expand over the early twentieth century, FMMR's commanders decided to utilize this space for additional, temporary weapon-training areas and for more permanent recreational uses, like the construction of the post's new officer's club. As a result of the FMMR's expansion into these accrued beach lands, the early twentieth century riprap sea wall no longer provided the installation's seaside boundary but continued to remain an important secondary buffer between the reservation and damaging storm surges. Even with the seawall's reduced importance by the beginning of 1934, FMMR's increasingly formalization of its physical setting - with the placement of ornamental pieces, fences, and signs - had become more defined to easily delineate military and civilian areas of Sullivan's Island.

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<sup>116</sup> Charles F. Kovacik and John J. Winberry. *South Carolina: The Making of a Landscape* (Columbia, S.C: University of South Carolina Press, 1989) 44-47.



Figure 3.92: FMMR Boundaries and protective measures 1920-1933. Source: author produced GIS/Photoshop basemap.



### Circulation Routes/ Post Utilities:

With the conclusion of the First World War and the nation's decade-long economic prosperity that followed, the rise of the automobile and increasing usage of electricity caused drastic improvements to FMMR's circulation routes and utilities for its garrison. While wealthy private citizens on Sullivan's Island before the war had owned automobiles, the rapid wartime mobilization of the installation brought the first U.S. Army trucks and numerous soldiers trained in how to maintain and operate these vehicles. After the war, the popularity of automobiles among FMMR's personnel followed the public's increasing demands for these vehicles and caused significant changes to the island's external and internal transportation networks. In 1926, because of local automobile popularity, Charleston County took control of the Cove and Breach Inlets' trolley bridges and fitted them with wood planks to allow automobile traffic connecting Mount Pleasant, Sullivan's Island, and Isle of Palms. Once this was established, the use of the electric trolley dramatically decreased to the point that the service was discontinued and all of its metal tracks removed from the island later that same year. In 1929, the Grace Memorial Bridge was completed linking Mount Pleasant to Charleston and further allowing FMMR's soldiers to drive from Sullivan's Island into the city and elsewhere on an expanding network of automobile routes.<sup>117</sup> The rapid public acceptance of automobiles and the radical changes to the Charleston area

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<sup>117</sup> Wendy Nilsen Pollitzer. *Images of America: Isle of Palms* (Charleston, SC: Arcadia Publishing, 2005) 7-8; Town of Sullivan Island. "Cultural Resources- Chapter 5" (*Sullivan Island Comprehensive Plan*, 2008) 34-48.

transportation network created a need for FMMR's leadership to change its internal circulation routes to account for the nation's automotive trends.



**Figure 3.93: 1940s U.S. Army Quartermasters Corps photograph of a Non-commissioned Officers Garage constructed in 1930 along the FMMR Cove area crushed gravel and sand service road. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163. College Park, MD.**

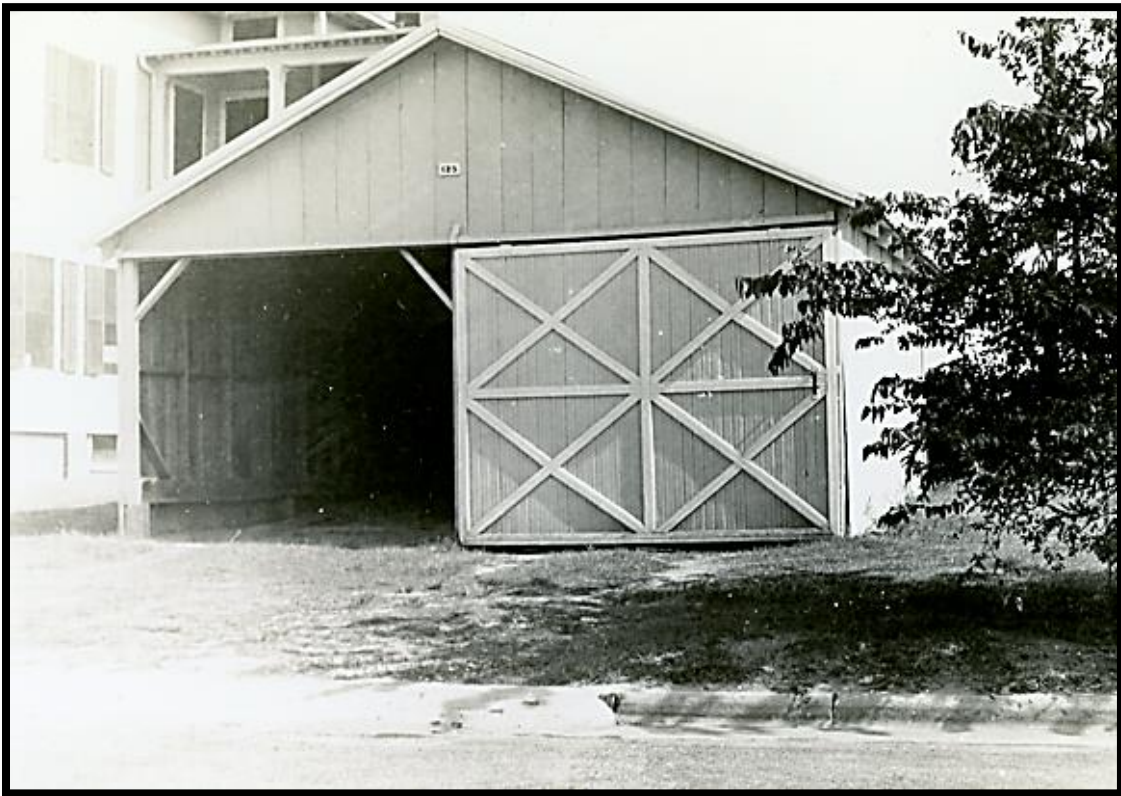
As FMMR's soldiers started to acquire their own vehicles, one of their biggest questions was where they could shelter them on an exposed island. When the U.S. Army began utilizing trucks on Sullivan's Island during World War I, they converted the post's 1906 wagon shed into a temporary garage that could fit six vehicles in addition to the post's blacksmith and harness shop.<sup>118</sup> After the war and throughout the 1920s, the Post Quartermasters received numerous requests to build garages to house the garrison's privately owned vehicles. Starting in August, 1930, the post allocated funds and

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<sup>118</sup> *Historic Building Record Cards for Fort Moultrie: Building 47 Wagon Shed* (National Archives, Record Group 77; Box 162, College Park, MD)



constructed six, simple, wood-framed with galvanized metal and wood siding garages that could fit four automobiles each. These simple metal shed-roof structures were placed on wood block foundations and equally distributed behind the three sets of thirty-five total senior and junior non-commissioned officers' quarters. Each of the garages faced and had access to the post's smaller service roads- similar to the island's past civilian pattern of placing service structures like kitchens and carriage houses to the rear of their lots.<sup>119</sup>



**Figure 3.94:** 1940s U.S. Army Quartermasters Corps photograph of one of six Officers Garage constructed in 1932 along the senior officers paved rear service road. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163. College Park, MD.

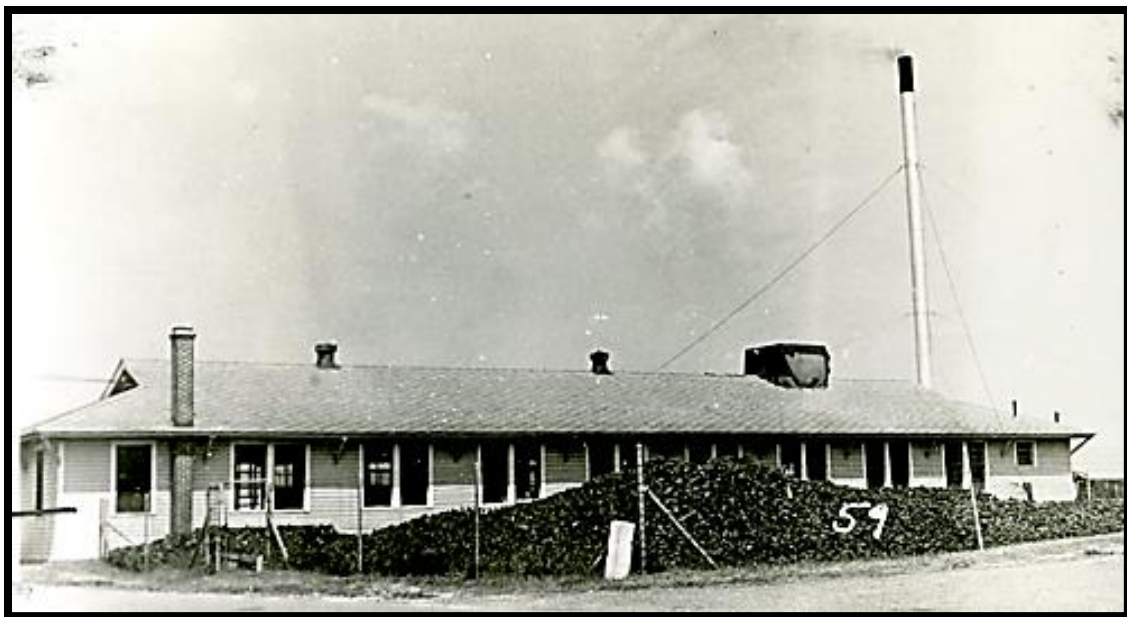
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<sup>119</sup> *Historic Building Record Cards for Fort Moultrie: Building 113,115-119 NCO Garages* (National Archives, Record Group 77; Box 162, College Park, MD)

After the immediate success of the NCO garages, FMMR's officers' requested the Post Quartermasters construct additional garages behind their quarters for their own use. During the fall of 1932, a total of six officer-garages that varied in size from two to four vehicles were constructed along the rear-paved service road between the officer's quarters and Middle Avenue. The design, materials used, and workmanship of these newer garages were a vast improvement over the shoddy construction used to erect the NCO garages two years prior and illustrated the differences in facilities' quality depending on military rank. Each of the officer's improved garages was built on a concrete foundation with additional concrete runways for its vehicles' tires to rest off the partial dirt floor. The garage's exterior was covered with uniformed clapboard siding, similar to the officer's quarter's exterior cladding, which was protected by a standing seam metal gable roof, as seen in Figure 3.94.<sup>120</sup> The addition of both building campaigns of early 1930s garages along with additional roadways built to better connect the growing installation signaled the change in FMMR's internal circulation system from an antiquated transportation network into one accommodating the automobile.

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<sup>120</sup> *Historic Building Record Cards for Fort Moultrie: Building 120-125 Officer Garages* (National Archives, Record Group 77; Box 162, College Park, MD)



**Figure 3.95: 1940s U.S. Army Quartermasters Corps photograph of Post Laundry constructed to support FMMR garrison and visiting training units. The laundry building was built in the FMMR Quartermaster's area as it was part of its mission to provide cleaning services. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163. College Park, MD.**

Another source of change to FMMR during this period was the updating of the post's utilities after decades of continuous use with contemporary electrical improvements. The popularity of electricity during the nation's 1920s economic prosperity, resulted in many new products being introduced like electric-powered cooking ranges, ovens, hot water heaters, and meters that measured how much electricity was consumed by each structure in order to charge them accordingly. Reacting to these national improvements and its garrison's desires to possess them, FMMR's Post Quartermasters modernized all structures from 1933 to 1934 with new electric hot water heaters, electric four burner stoves and ovens, and the individual meters to track the post's electrical usage.<sup>121</sup> Additionally, the Post Quartermasters constructed a 4,300

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<sup>121</sup>*Historic Building Record Cards for Fort Moultrie* (National Archives. Record Group 77; Box 162, College Park, MD)

square foot post laundry that was capable of cleaning over 35,000 pieces per month using electrical power to run numerous, modern washing, drying, and pressing machines.<sup>122</sup>

These interwar transportation and utilities advancements helped to improve the post's twenty-year old, outdated infrastructure and provided its garrison with a better quality of life than most Americans struggling through the Great Depression.

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<sup>122</sup>*Historic Building Record Cards for Fort Moultrie: Building 59 Post Laundry* (National Archives, Record Group 77; Box 162, College Park, MD)

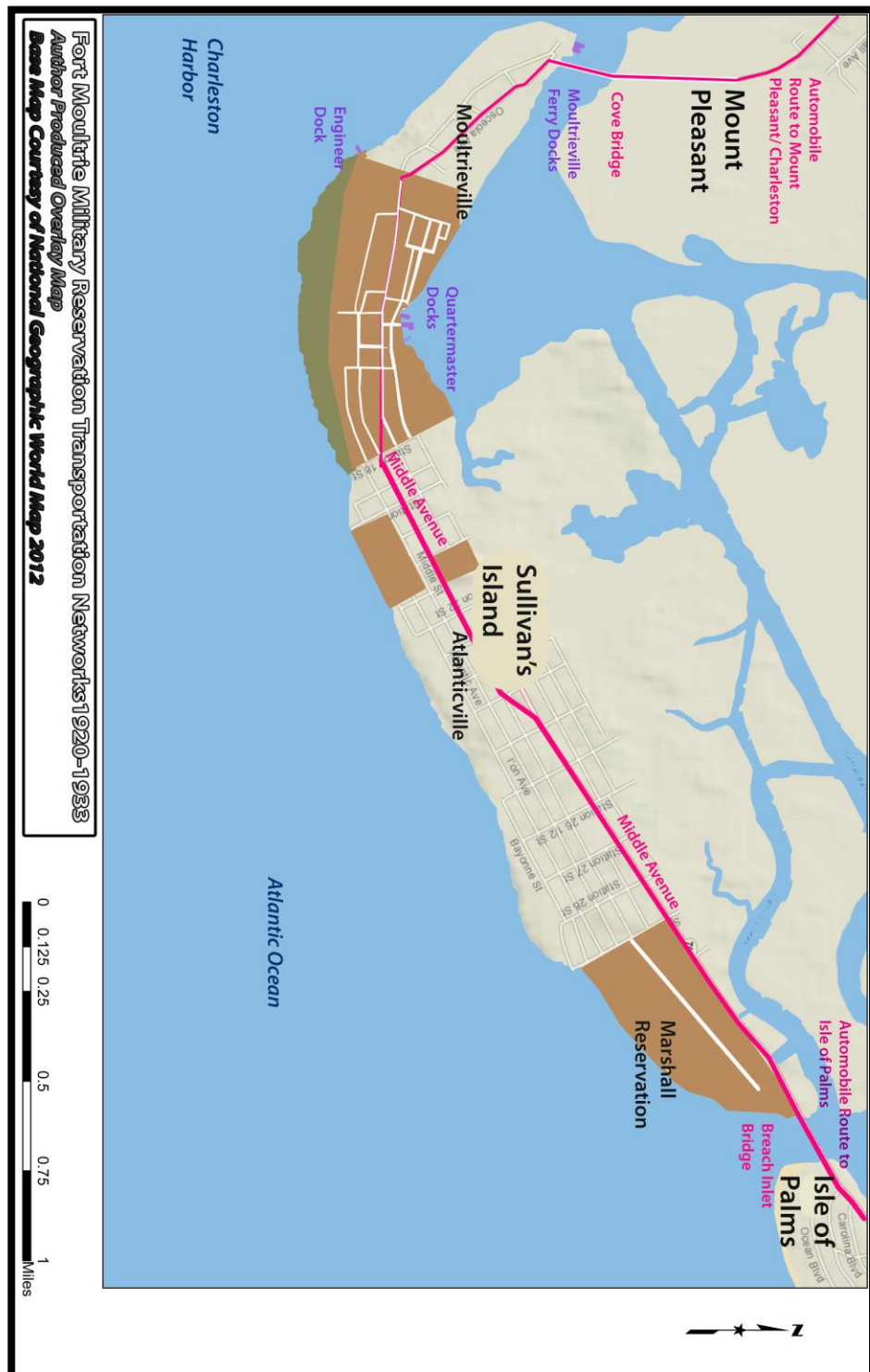


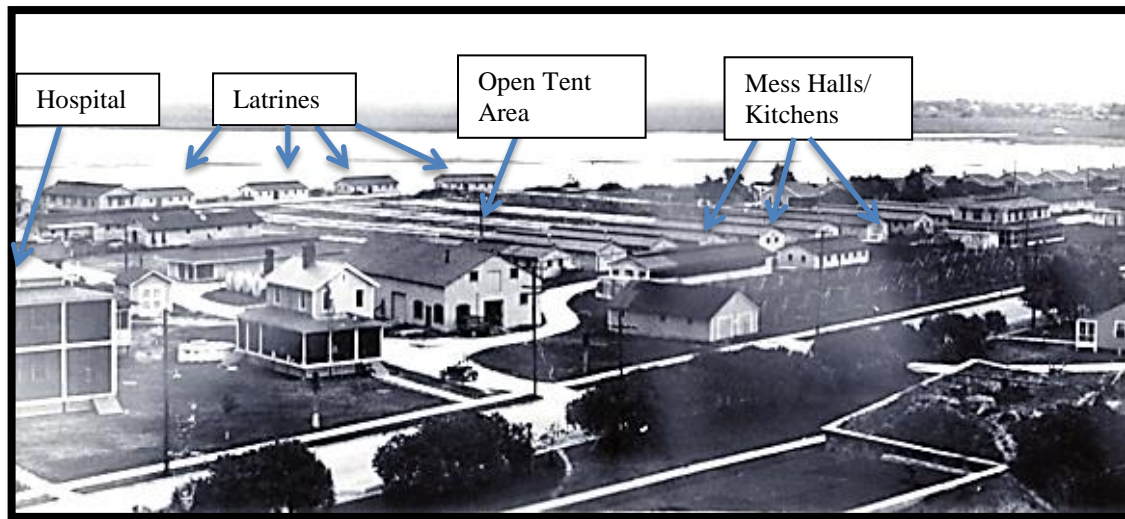
Figure 3.96: FMMR Transportation Network 1920-1933. Source: author produced GIS/Photoshop basemap.

### Structures:

The post -World War I reduction in military funding and U.S. Army personnel numbers resulted in numerous changes to Sullivan's Island built environment. These changes included the removal of most wartime temporary structures and erection of new buildings to support the nation's military policy of depending on Reserve forces instead of maintaining a large standing army. Two separate construction efforts were undertaken during this period to support FMMR's part in providing Reserve-training areas while also improving the existing garrison's quality of life. First, the early 1920s salvage and clearance of the World War I cantonment area provided the space for the Post's Quartermasters to construct the required late 1920s National Guard camp area's support buildings crucial to accomplish FMMR's new military mission. The second campaign was completed in the early 1930s once the training mission had begun, creating additional workload for FMMR's combined Eighth U.S. Infantry and Battery D, 13<sup>th</sup> CA Regular Army garrison. During this secondary effort, the Post Quartermasters used funds to improve the installation's recreational facilities along with enhancements to the entire post's transportation and utilities networks.<sup>123</sup> By combining these FMMR's structural additions during this transitional interwar period, the post's leaders combatted lean U.S. Army budgets to provide not only its permanent garrison, but the thousands of civilian soldiers who trained at FMMR, with an improved standard of living with modern utilities and recreational opportunities that most of these men had not experienced in the nation's underdeveloped rural areas.

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<sup>123</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 84-85.



**Figure 3.97: 1932 Photograph of the National Guard Camp area adjacent to the Post Hospital.** The image shows the camp's latrines buildings located on the far cove side while the camp's mess halls and kitchens are placed closer to Middle Avenue. In between these two important support areas, the camp's open field where visiting training units could erect their tents that they would live and work out of during training. Courtesy of the Fort Sumter NPS Archives.

The U.S. Army's 1926 Military Post Construction Fund, created after Congress passed Public Law 45, financed FMMR's first group of structures constructed during this period, along with numerous other national defense projects across the nation.<sup>124</sup>

Requiring a replacement housing and support area to care for the numerous Coastal Artillery National Guard units and other visiting civilian military organizations, the Post Quartermasters constructed over twenty different structures in two construction phases over a three-year period. In each of the phases, six kitchen and mess hall buildings along with two latrine structures were completed around the central tent area. These buildings' exterior locations allowed them to be easily attached to all of the post's utilities lines that had been placed around the National Guard's camp. The kitchen and mess hall structures each held 1,400 square feet of space divided between an open-bay eating area with

<sup>124</sup> U.S. Army Environmental Center. *Context Study* 48.



simple wood tables and benches connecting to a serving window. The kitchen could serve one hundred and twenty soldiers at each meal. The 960 square feet of space in each of the latrine buildings constructed provided enough sinks, toilets, and showers to support two hundred men. All of these National Guard Camp structures were designed as improvements to the World War I era, 600-series standardized plans with raised concrete pier foundations, wood platform framing, clapboard exterior siding, and a projecting sheet metal roof.<sup>125</sup>



**Figure 3.98: 1940s U.S. Army Quartermasters Corps photograph of one of twelve kitchen and mess hall buildings constructed to support the National Guard training camp. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163. College Park, MD.**

In addition to these new structures in the National Guard camp, the Post Quartermasters constructed shelters for some of the post's newest armament- tractor drawn 155mm mobile guns- so that training units could maintain them close to their

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<sup>125</sup> *Historic Building Record Cards for Fort Moultrie: Building 62-77 Kitchen/Mess Hall, Latrines* (National Archives, Record Group 77; Box 162, College Park, MD)



living area. These two, simple, wood-framed buildings with thin paper wall sheathing and metal shed roofs provided enough room for six of these guns and their tractors to be protected from the environment. From these storage locations, individual training units could practice transporting the tractors and attached guns to the numerous battery positions built along the installation's coast to conduct individual gunfire drills.<sup>126</sup> In addition to building new structures, the National Guard training camp absorbed the remaining six, two-story World War I cantonment barracks and attached latrines scattered throughout the cove area, which further expanded their personnel support capabilities. By the end of 1928, FMMR's Quartermasters had rapidly constructed facilities for up to 1,500 reserve soldiers by rehabilitating the cove area for a new purpose.



**Figure 3.99: 1938 Photograph of FMMR's theater with kids sitting out front and movie posters next to its entrances taken by Mr. Woodrow Stoger. Courtesy of the Fort Sumter NPS Archives.**

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<sup>126</sup> *Historic Building Record Cards for Fort Moultrie: Building 78-79 Gun/Tractor Sheds* (National Archives, Record Group 77; Box 162, College Park, MD); *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park*.

The development of the National Guard training camp resulted in in the sizeable increases to the number of soldiers present on FMMR with the addition of the Eighth U.S. Infantry Regiment to the post's permanent garrison along with the temporary addition of visiting training units. FMMR's limited amount of aged recreational and entertainment resources were inadequate for these personnel increases and resulted in an effort by the post's leadership to correct this shortfall with new structures. The first building constructed was the Post's five hundred and fifty person capacity theater completed in May, 1928. As one of few permanent structures erected by Post Quartermasters since FMMR's initial construction campaign, the post theater followed a standardized plan for these popular recreational facilities at most U.S. Army installations during this period. The 5,200 square foot, two-story structure had a concrete foundation, brick exterior walls, and wood floors that held rows of individual wood theater seats for the garrison's soldiers, families and guests that regularly attended. Sullivan's Island's first, large indoor entertainment venue held soldier-run stage performances, touring entertainment acts, and popular motion pictures and was immensely popular to soldiers and local civilians as one of the first theaters outside of Charleston.<sup>127</sup>

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<sup>127</sup> Berhow, Eastman and Smith. "Barracks, Bakeries, and Bowling Alleys" 541; *Historic Building Record Cards for Fort Moultrie: Building 55 Theater* (National Archives, Record Group 77; Box 162, College Park, MD); *Historic Photograph Files: Ft Moultrie/ Sullivan Island* Fort Sumter National Park.



**Figure 3.100: 1930s Photograph of FMMR's Library adjacent to the post theater, taken by Mr. Woodrow Seager. Courtesy of the Fort Sumter NPS Archives.**

After the immediate and overwhelming success of their first recreational improvement, the Post Quartermasters' constructed another structure that had become more commonplace in America's growing cities and towns throughout the twentieth century- the post's library. The first, non-private library constructed on Sullivan's Island was completed in December, 1931, and matched the building materials used in its neighbor's recent construction, the Post Theater. Over the next decade, local communities, churches, and individuals donated books, rapidly filling the library's wood shelves erected along its 1,000 square foot interior.<sup>128</sup> The completion of these two recreational buildings across Middle Street from the post's YMCA building created a

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<sup>128</sup> *Historic Building Record Cards for Fort Moultrie: Building 58 Library* (National Archives, Record Group 77; Box 162, College Park, MD)

centralized entertainment hub along its busiest thoroughfare that was unmatched in any of the local communities outside Charleston at the time.



**Figure 3.101: 1933 U.S. Army Photograph of recently constructed Jasper Hall, FMMR's Officer's club located in front of the Officer's quarters on the beach. Courtesy of the Fort Sumter NPS Archives.**

Desiring an upgrade to their own recreational facilities, FMMR's officer leadership directed that the Post Quartermasters construct a new officer's club in 1933 to replace the thirty-year-old Endicott era club and gymnasium building that was next to the post's reservoir along Middle Avenue. Selecting a location that would be secluded from FMMR's lower ranking soldiers to maintain its military hierarchy, the Post Quartermasters selected an area of recently accrued beach in front of the senior officer's quarters. On this site, a 5,400 square foot, one-story, sprawling structure was built that cost \$14,000. It matched the senior officer's quarters appearance with a raised concrete pier foundation, clapboard exterior siding, plaster interior walls, and a standing seam

metal roof. All post utilities were run to this remote location to provide modern amenities to the club's large banquet hall, kitchen, numerous bathrooms and beach changing rooms. Similar in popularity to the other recreational facilities built during this period, Jasper's Hall, the name given to the new officer's club, became the central entertainment area for the post's leaders, further segregating their areas from the rest of the garrison.<sup>129</sup> Due to its importance to FMMR's officer leadership, the Jasper Hall was constructed as one of the post's most handsome structures, designed to match the island's beach cottage architecture not constructed from a standard U.S. Army Quartermaster plan, it received more attention to the building materials used and craftsmanship, to create a significant addition to the post's overall layout.

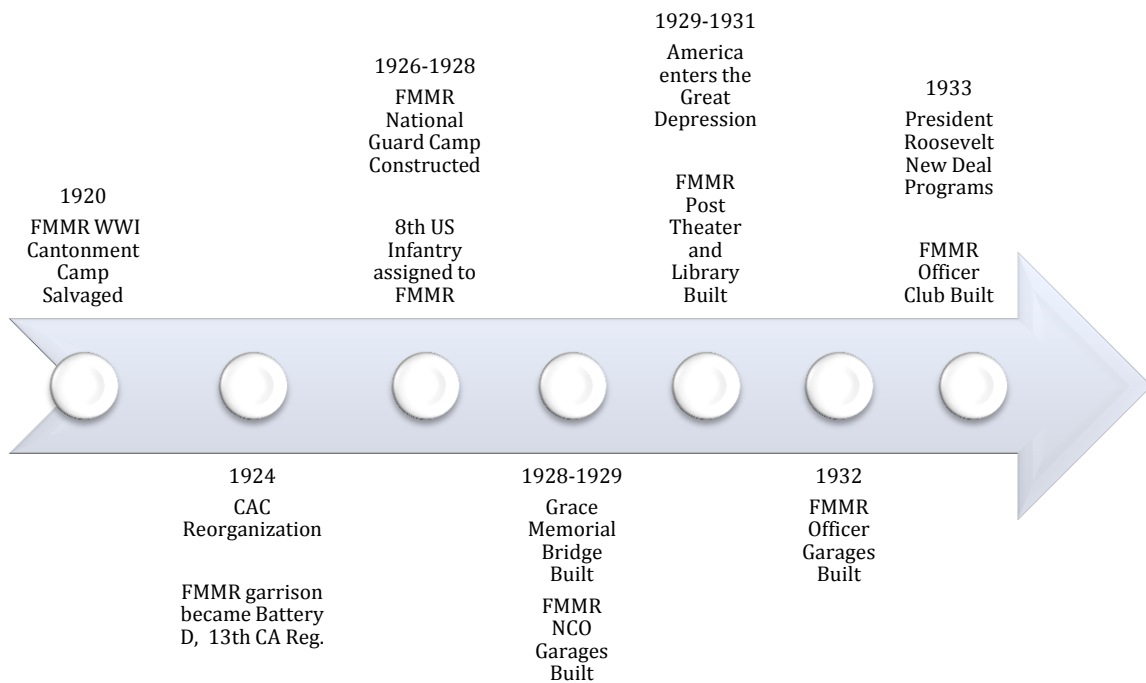
The years between the end of the First World War and the beginning of the Second World War were a key transition phase in FMMR's history. During these years, the shrinking Regular Army had been given new missions, which actually increased the size of FMMR's garrison. Modern technological advances resulted in removal of obsolete weapons from its aging armament, while new motor transportation improved mobile defenses and methods of supply. Even during this transitional period with its slim funding, FMMR's leadership had procured funds to improve its garrison's quality of life with community-wide recreation and utility improvements that made its sea island military residents the equal in facilities to its wealthy Charleston neighbors. By emulating the national trends in urban development, FMMR's architectural layout and wide array of municipal services set a standard for the multitudes of civilians annually

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<sup>129</sup> *Historic Building Record Cards for Fort Moultrie: Building 54 Officer's Club* (National Archives, Record Group 77; Box 162, College Park, MD)

trained on the installation who returned back to their communities to promote these contemporary planning ideas. All of these developmental elements of FMMR's inter-war period assisted in preparing the expanding post for the rapidly approaching conflict that would alter its landscape once again.

### FMMR Third Period of Development Timeline





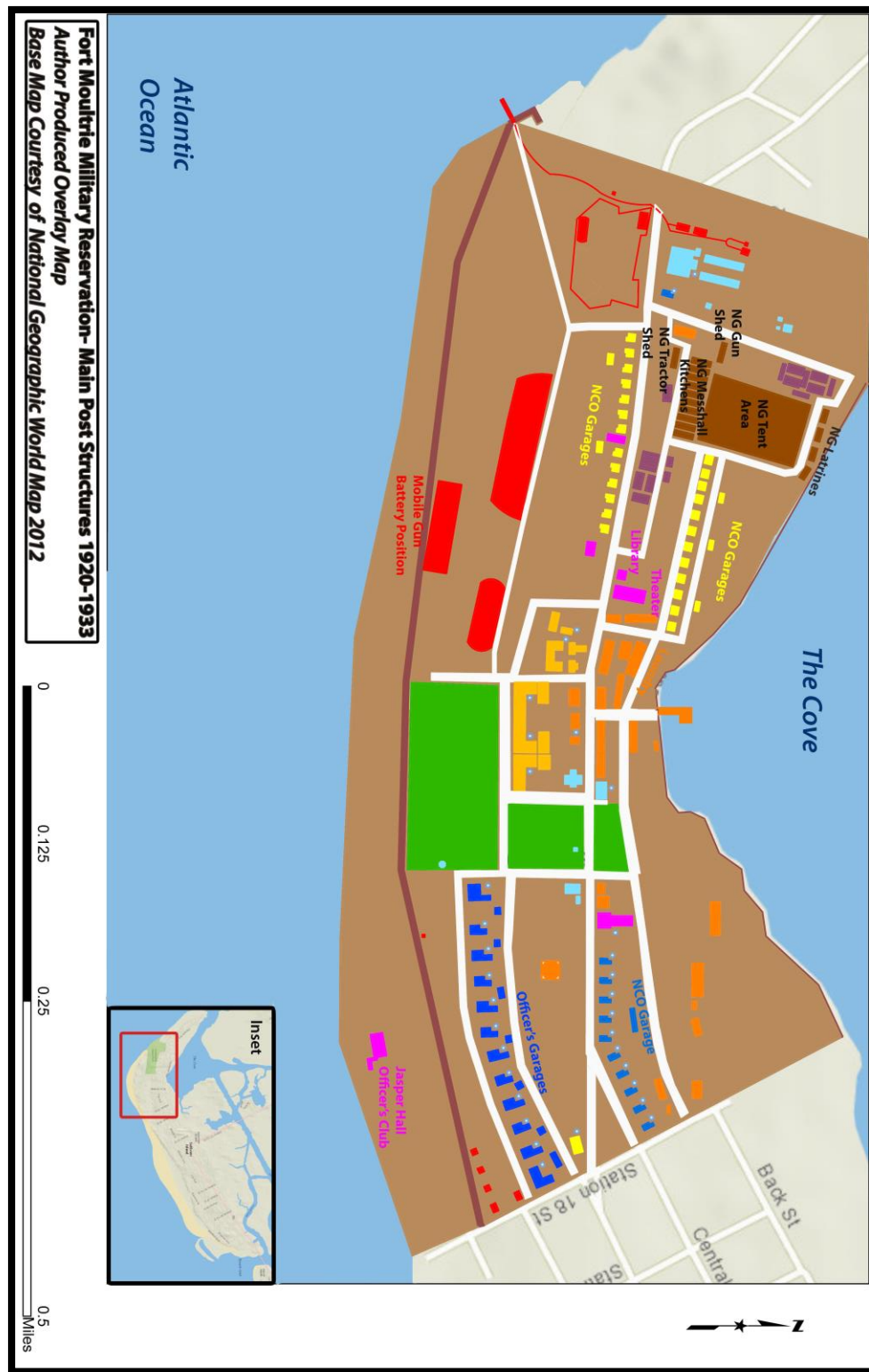


Figure 3.102: FMMR Structures existing from 1920-1933. Source: author produced GIS/Photoshop basemap.

#### 4<sup>th</sup> Period of Development: 1934-1947:

##### New Deal Growth, World War II Expansion, & Decommissioning

##### Military Mission:

The last thirteen years of FMMR's active service, from the nation's efforts to economically emerge from the Great Depression to the rapid mobilization, involvement, and deactivation of the Second World War, was overall the installation's most active and resulted in the most changes to its landscape. During this period, FMMR implemented Army policies that stressed the garrison and added a variety of new missions. This required FMMR's leadership to alter different existing or vacant areas of the installation to support these new missions. As a result of this evolution, FMMR modernized its defenses by removing numerous outdated Endicott armaments and replaced them with updated weapons and methods of protecting them. Even with these improvements, the Second World War's advances in military technology, showed that early twentieth century coastal defenses could be easily defeated by modern aerial attack or bypassed by increasingly mobile forces, making harbor defense reservations, like FMMR obsolete. The fluctuations in FMMR's military missions during its last years resulted from these changes in technology and ultimately resulting in the post's deactivation in 1947.

With the inauguration of President Franklin D. Roosevelt in early 1933, national economic reforms were quickly enacted to stimulate the country out of the Great Depression. The combination of two of these efforts created new organizations and projects that assisted the local economy by improving FMMR's infrastructure. The first

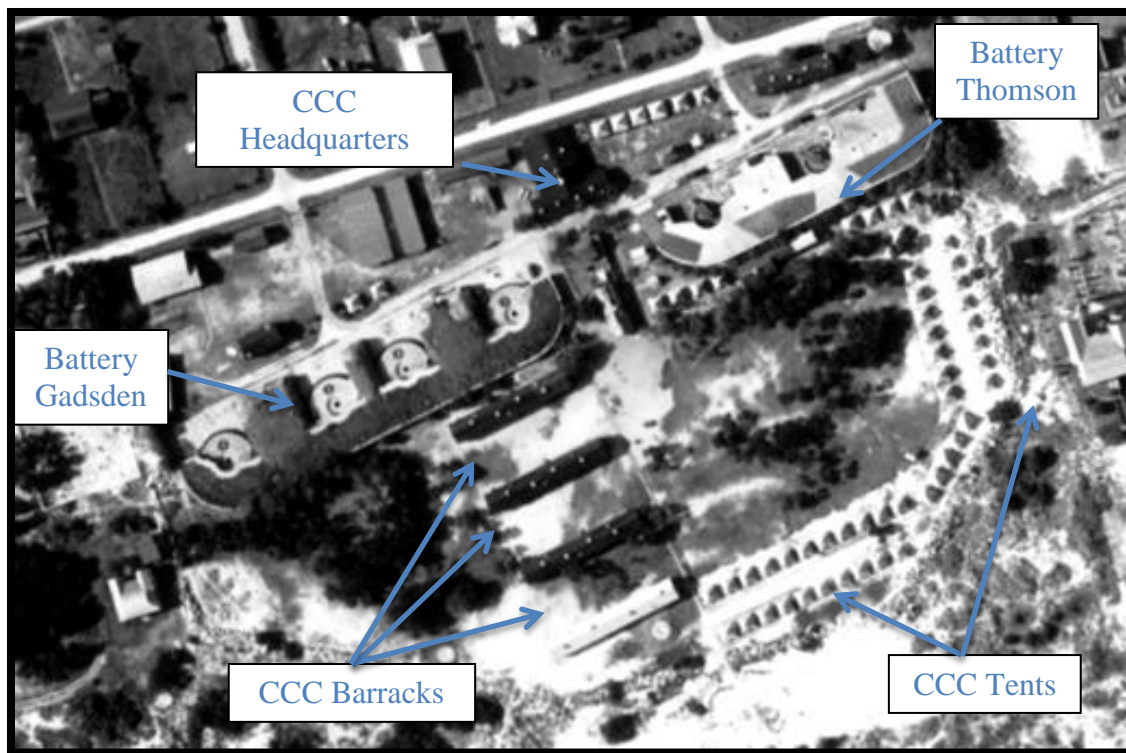


effort, the Civilian Conservation Corps (CCC) was created in the spring of 1933, in order to relieve local young men's high unemployment by creating an organization that would employ and educate them in infrastructure and conservation projects that were for the nation's benefit. A combined national effort between the Departments of Agriculture, Interior, Labor, and War, resulted in the U.S. Army being assigned the responsibility of administering the formation of the CCC units and camps across the nation. As a result, the U.S. Army identified in the summer of 1933 that FMMR would be the headquarters of District I in the CCC's Fourth Corps area of the southeastern United States.

Responsible for inprocessing, providing basic technical skill training, and medical evaluations for a majority of South Carolina's initial allocations of 3,500 men in the organization's first year, required the rapid allocation of significant space and military manpower to be successful.<sup>130</sup>

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<sup>130</sup> Department of Defense Legacy Resource Management Program. *New Deal Historic Resources on Department of Defense Installations* (Legacy Project Number 07-357, 2009) 1-5; Tara Mitchell Mielnik. *New Deal, New Landscape: The Civilian Conservation Corps and South Carolina's State Parks* (Columbia, S.C: The University of South Carolina Press, 2011) 17-23.



**Figure 3.103: 1934 U.S. Army Air Corp Aerial Photograph of FMMR's installation around Batteries Gadsden and Thomson, where South Carolina's CCC District I headquarters and supporting buildings were constructed. Image shows the military's architecture and layout of the site's barracks, mess hall, recreational center, and training facilities around the Endicott batteries. Courtesy of the National Archives, RG 342, Entry FH, Still Photos Branch, College Park, MD.**

Utilizing the existing National Guard Training area, FMMR garrison quickly organized the CCC recruits into 200-man units that were commanded by an Army officer, who was supported by four enlisted men: a First Sergeant, Supply Sergeant, Mess Sergeant, and Cook. These units underwent basic physical and medical testing, while also receiving basic instruction on conservation work for a two-week period. After this integration period, these units were detached from their supervising military leadership and assigned to a camp project located at various sites across the state. These assignments were delayed during the CCC's first year as local and the state governments applied for projects, so FMMR's CCC units were ordered to construct their own camp in the vacant

area around Battery Gadsden. Completed by the end of 1934, this camp provided all living and working space for the continued inprocessing of new CCC recruits and the district's CCC supply company responsible for supporting all state units. As a result of FMMR's supervision in the rapid mobilization of South Carolina's CCC recruits, a total of twenty-seven different camps were created throughout the state by 1935 and reported back to FMMR leadership in charge of District I CCC's headquarters. Over the next seven years of the CCC's existence, FMMR continued to be South Carolina's centralized leadership and supply hub for the relocating project camps that completed hundreds of infrastructure improvements and help established its State Parks System.<sup>131</sup>



**Figure 3.104: 1939 U.S. Army Quartermasters Corps' photograph of a WPA-funded brick warehouse, recently constructed next to the Quartermaster docks for more logistic storage space. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

The second national economic stimulus effort, the Works Project Administration (WPA), provided funds to hire local labor and building materials to construct new

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<sup>131</sup> Mielnik. *New Deal, New Landscape* 30-39; *Civilian Conservation Corps Newsletters from South Carolina camps, 1934-1940* (South Carolina Historical Society, 2012)

buildings and infrastructure to improve the public's health and welfare, benefitted both the civilian and military areas of Sullivan's Island. While the island's civilian government received funding to build a water supply and distribution system to provide the island's first non-military running water and sewage service, the military focused on acquiring funds to improve their garrison's supporting facilities.<sup>132</sup> Throughout his short assignment in 1933, the 8<sup>th</sup> Infantry Regiment commander, Colonel George C. Marshall, the future Second World War U.S. Army Chief of Staff and post-war Secretary of State, focused his efforts on influencing the WPA to assist in rehabilitating FMMR. As a result of these and other continuing efforts throughout the 1930s, the WPA provided funding for FMMR's Quartermasters to hire local laborers and purchase supplies to construct numerous military warehouses, workshops, and other logistical infrastructure across the installation. The WPA assistance was crucial to increasing FMMR capabilities, as the installation was still responsible for supervising expanding military and civilian training missions while the U.S. Army's 1930s annual budgets provided little funding for these improvements.<sup>133</sup>

Poland's rapid capitulation to Germany's invasion in the fall of 1939, and the resulting declarations of war from France and England that initiated the Second World War, caused the United States to review its antiquated coastal defenses while also beginning to mobilize its industry and reserve civilian forces for the upcoming conflict. In early 1940, the CAC began a modernization program that would update existing armaments with protections from both modern naval and aerial attacks. As the U.S.

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<sup>132</sup> Wannamaker, *Long Island South* 220-221.

<sup>133</sup> Stokeley. *Constant Defender* 88-89; Department of Defense. *New Deal Historic Resources* 7-9, 18-19.

Army's branch responsible for anti-aircraft and mobile large-caliber artillery since World War I, the CAC understood that recent military theory and equipment had made most of the nation's coastal defenses inadequate. In order to quickly correct these problems, the 1940 Harbor Defense Board recommended the installation of massive concrete casemated pairs of 16-inch or 12-inch guns with a range of over twenty miles that would be protected from enemy aerial bombs or naval shells. Supporting each of these large caliber batteries would be a secondary armament of six-inch guns protected by wrap around metal shields that could engage enemy vessels out to fifteen miles. To protect these upgraded coastal defense batteries from aerial attack, along with securing the harbor's anti-submarine nets and defeating attacks from quick enemy torpedo boats, the board recommended the installation of 90mm rapid-fire batteries in addition to smaller 37mm guns or 50-caliber heavy machine guns for anti-aircraft defenses. Approved by Congress in September 1940, the modernization plan was slow to develop as individual harbors were asked to survey new battery locations at the same time as the military was focused on its rapid expansion in preparation for war.<sup>134</sup>

The swift escalation of the European conflict at the beginning of 1940, resulted in the nation's government authorizing the doubling of the United States' standing army to 375,000 men by the summer of 1940 and enacting the first peacetime draft with the passing of the Selective Service Act of September 1940.<sup>135</sup> As a result of these

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<sup>134</sup> Lewis. *Seacoast Fortifications of the United States* 115-119; McGovern, Terrance & Bolling Smith. *American Coastal Defenses 1885-1950* 41-44; Kaufmann. *Fortress America* 349-352.

<sup>135</sup> Diana S. Wasch, Perry Bush, Keith Landreth et al. *World War II and the U.S. Army Mobilization Program: A History of 700 and 800 Series Cantonment Construction* (Legacy Resources Management Program, U.S. Department of Defense and National Park Service, Cultural Resources HABS/HAER Division, 1991) 9-10.

enlargements, FMMR's mixed 1930s-interwar garrison was enlarged as Battery K, 13<sup>th</sup> CA was activated to reinforce its sister Battery D with FMMR defenses. Additionally, when the 8<sup>th</sup> U.S. Infantry Regiment was reassigned to Fort Benning, Georgia in June, 1940, the recently mobilized 70<sup>th</sup> Coastal Artillery (Anti-aircraft) Regiment filled in the infantry's barracks, while awaiting the construction of Fort Stewart, Georgia's anti-aircraft training facility.

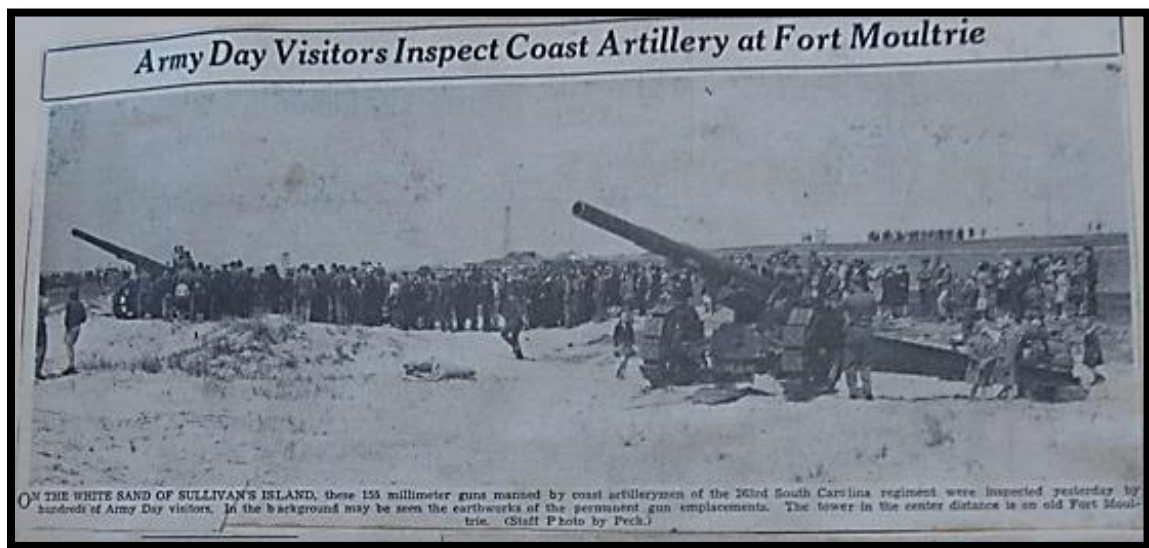
Another method utilized by U.S. Army during this period to rapidly fill its ranks was the mobilization of National Guard units into federal service for one-year periods, which had an immediate impact on Sullivan's Island. In September 1940, the 252<sup>nd</sup> North Carolina National Guard Coastal Artillery Regiment was activated into federal service and mobilized at FMMR, displacing one half of the 70<sup>th</sup> CA Regiment, which moved to Fort Screven outside Savannah. These increases filled all of the installation's available space throughout the end of 1940 and delayed the activation of the 263<sup>rd</sup> South Carolina National Guard Coastal Artillery Regiment at its assigned Charleston harbor defense positions until additional space could be created.<sup>136</sup>

In December 1940, the rest of 70<sup>th</sup> CA Regiment moved to its permanent station at Fort Stewart, allowing the 252<sup>rd</sup> CA Regiment to leave FMMR to occupy the vacant space at Fort Screven. As a result of this redeployment of forces, the 263<sup>th</sup> CA Regiment was finally able to mobilize at FMMR in January 1941 and to occupy its defenses along with its fellow units from the 13<sup>th</sup> CA Regiment in defense of Charleston harbor. Now able to fully man the harbor defenses with its National Guard contingent of Coastal

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<sup>136</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part I: 1894-1939" 85-86.

Artillery soldiers, the 13<sup>th</sup> CA Regiment redistributed its assets over the summer by inactivating Battery K at FMMR and redistributing its men to fill Battery D to full strength. Over the last few months before America's involvement, the two units of Battery D, 13<sup>th</sup> CA Regiment and the 263<sup>rd</sup> South Carolina National Guard Coastal Artillery Regiment trained on FMMR's existing armaments and would together defend Charleston's harbor when war was declared in December, 1941.<sup>137</sup>



**Figure 3.105: June 1941 Charleston Courier Newspaper Article and Photograph of the Annual U.S. Army Day held at FMMR for civilians to see how the 263<sup>rd</sup> CA Regiment operates the 155mm guns in the harbor's defense. Courtesy of the National Archives, Record Group 338, Box 139, *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie*, College Park, MD.**

While FMMR's garrison was undergoing significant personnel changes as the nation began mobilizing for war in 1940, two other additional military developments occurred on Sullivan's Island. Early in the year, the U.S. Army selected the area on the north side of the Marshall Reservation as an overseas discharge and replacement depot for soldiers either going to or returning from garrisons scattered across the world. Just

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<sup>137</sup> *Ibid.* 86.



like inprocessing new recruits into military, these overseas service soldiers needed to be medically cleared, complete required administrative and training prerequisites, before they were sent to Charleston's government docks for transport to their new and often exotic assignments. By constructing the depot's barracks and processing centers away from the majority of FMMR's coastal defense mission, this additional military mission had little impact on the installation besides requiring additional support to the depot personnel.<sup>138</sup>



**Figure 3.106: 1943 U.S. Army Photograph of the western side of Fort Moultrie with the two story HECP/HDCP in the background. In the foreground is one of the sixty-inch searchlights used to identify targets for nearby Battery Lord and a seven-foot high chain linked fence that was erected rapidly after war was declared. Courtesy of Fort Sumter NPS Archives.**

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<sup>138</sup> *Special Investigation of the O D & R Depot Fort Moultrie 1941* (National Archives. Records of Headquarters Army Ground Forces, 1916 – 1956. Record Group 337. Box 59. College Park, MD)



The second development was the result of a September 1940 directive from the Secretary of War to merge the defensive abilities of the U.S. Army and U.S. Navy to protect the nation's harbors. This coordinated effort resulted in a combined command that would control all shipping and defensive measures from a centralized location overlooking each harbor. The FMMR's Army leadership and the nearby U.S. Navy leadership from the Charleston Naval Yard decided to position their combined command, the Harbor Entry Command Post/ Harbor Defense Command Post (HECP/HDCP), in the World War I-era two-story primary base end station located on the northwest bastion of old Fort Moultrie. The upstairs three sets of double rooms would provide space for each of these combined operations centers along with the Harbor Defense Signal Station, while the lower level would provide barrack space for the Navy personnel assigned to operate the signal and communication equipment. This combined command between the U.S. Army and U.S. Navy slowly began to accumulate personnel over the fall of 1941, but was not fully manned before the country was pulled into the Second World War.<sup>139</sup>

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<sup>139</sup> Edwin C. Bearss. *Special History Study Fort Moultrie HECP- HDCP, Fort Sumter National Monument, SC* (Denver: National Park Service Denver Service Center Historic Preservation Team, 1974) 3-12; Kaufmann. *Fortress America* 352-354.



Figure 3.107: FMMR Coastal Artillery Corps Defenses: 1934-1947. Source: author produced GIS/Photoshop basemap.

When the Japanese bombed Pearl Harbor in December, 1941, Charleston's defenses consisted of Battery D, 13<sup>th</sup> CA and the nine batteries of the 263<sup>rd</sup> CA Regiment manning Batteries Thomson, Logan, Capron/Butler, Huger, the four 155mm guns at the Marshall Reservation, and numerous searchlight locations surrounding Charleston's harbor. Immediately after war was declared, all of these defenses were placed under full alert with gun crews serving in two shifts over the next ten months. Additionally, the entire barrier islands' beaches surrounding Charleston's harbor including Sullivan's Island, were guarded by patrols from the Charleston-based, 2<sup>nd</sup> Battalion Combat Team, of the 156<sup>th</sup> U.S. Infantry Regiment. As defensive measures were quickly enacted to defend Charleston's harbor, the national mobilization to fight in two different theaters of war resulted in the rapid reduction of regular Coastal Artillery soldiers in Battery D, 13<sup>th</sup> CA. In January and February, 1942, large segments of FMMR's sole remaining regular army unit were reassigned to new Coastal Artillery units deploying overseas. By April 24, Battery D had been so reduced that it was inactivated and all of its remaining personnel were incorporated into the 263<sup>rd</sup> CA Regiment, which now had sole responsibility of defending Charleston's harbor throughout the remainder of the war.<sup>140</sup>

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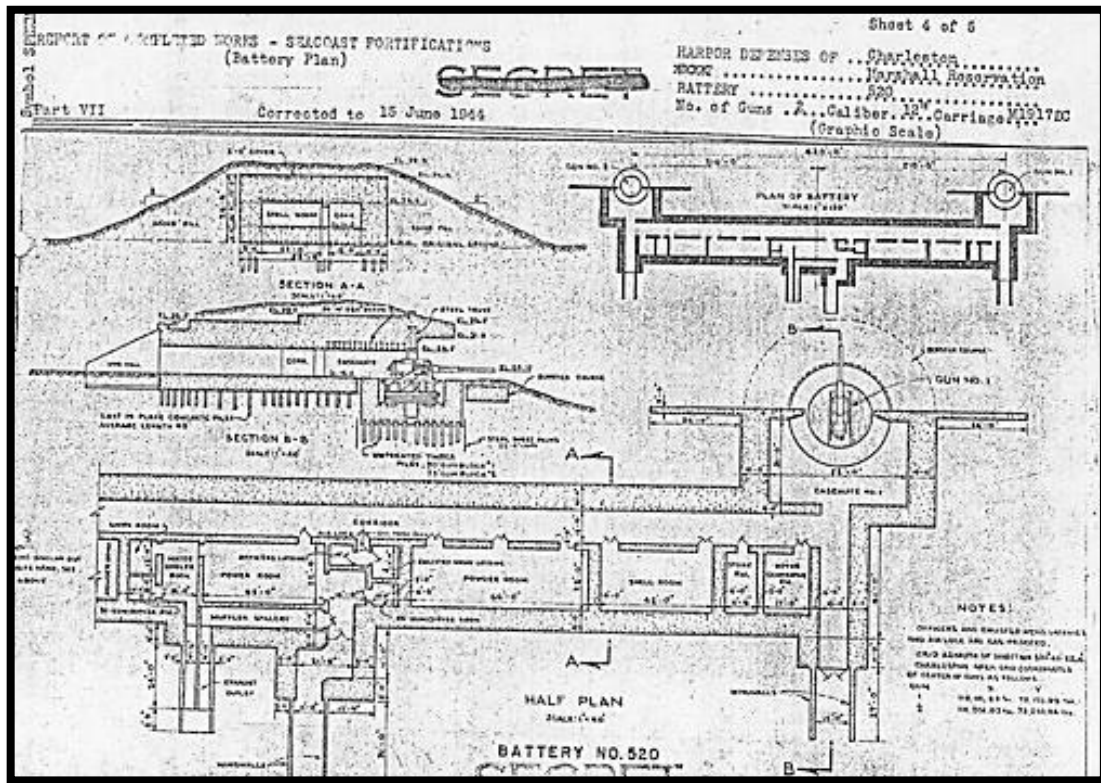
<sup>140</sup> William Gaines. "A History of Modern Coastal Defenses of Charleston, South Carolina, Part II: The Harbor Defenses of Charleston in World War II" (*The Coastal Defense Study Group Journal* Nov. 1998) 35-37.



**Figure 3.108: July 17, 1942 Charleston Post and Courier Newspaper Article and Photograph of the 263<sup>rd</sup> CA Regiment's leadership conducting harbor defense drills at the HECP/HDCP. Courtesy of the National Archives, Record Group 338, Box 139, *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie, College Park, MD.***

Confident in their abilities, the 263<sup>rd</sup> CA Regiment over the war's next four years skillfully supervised the construction of the 1940 modernization improvements while also continuing to train on FMMR's pre-existing armaments. Throughout 1942, FMMR garrison completed numerous training exercises to practice engaging enemy vessels and preventing enemy amphibious landings that were well publicized in the local press, reassuring Charleston's citizens that they were safe from the war's impacts. In order to coordinate all of Charleston's defenses and to control shipping in and out of its harbor, by the beginning of April 1942, FMMR's HECP/HDCP was mobilized with sufficient 263<sup>rd</sup> CA Regiment and U.S. Navy personnel to fully control access to the harbor. These defensive preparations were tested during the summer and early fall of 1942, when German U-boat submarines were lurking outside the country's east coast harbors in a

very successful attempt to disrupt coastal shipping. But, the combined coordination of the FMMR's HECF/HDCP personnel along with numerous navy and coast guard vessels assigned to patrol the harbor during this blockade period ensured that German attempts to sink any Allied vessels in the immediate Charleston area were unsuccessful. By the end of 1942, Charleston's harbor was secure from further German attacks because of improvements to anti-submarine tactics that had defeated the threat along the coast, allowing the 263<sup>rd</sup> CA Regiment the ability to focus on improving the post's aging defenses.<sup>141</sup>



**Figure 3.109: 1945 U.S. Army Corps of Engineers Report of Completed Works for Charleston's Harbor Defense showing blueprint views of Battery 520 constructed on the Marshall Reservation from 1943 to 1945. Courtesy of the National Archives, *Battery 520, Reports of Completed Batteries 1945*: Box 162,163. Office of the Chief of Engineers. Record Group 77; College Park, MD. 180-184.**

<sup>141</sup> Ibid. 38-40; Bearss. *Special History Study Fort Moultrie HECF- HDCP* 89-90; Stokeley. *Constant Defender* 92.

Reassessing the need to improve FMMR's aging armament, the 263<sup>rd</sup> CA Regimental leadership finalized the locations for the 1940s modernization projects towards the end of 1942. FMMR's new main armament would consist of two 12-inch casemated guns with a separate casemated fire control bunker located on the Marshall Reservation between the Overseas Discharge and Replacement depot to the north and the rifle range to the south. Construction of this enormous covered fortification, called Battery 520, was begun in early 1943 but was delayed in completion due to settling problems until 1945. Costing over one and half million dollars to construct, the largest modern battery built to defend Charleston's harbor was never occupied by FMMR's garrison but came to dominate the northern end of Sullivan's Island with its forty-foot high elevation.<sup>142</sup>



**Figure 3.110: 1945 U.S. Army Photograph of Battery 520's two casemated gun opening with connecting magazines protected by the large concrete and earth mound between the two openings. Image also shows the Overseas Discharge and Replacement Depot barracks buildings in the background that had been converted for use by the soldiers manning the Marshall Reservation's 155mm guns. Courtesy of the National Archives, Record Group 338, Box 139, *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie, College Park, MA.***

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<sup>142</sup> *Reports of Completed Batteries 1945: Battery 520* (National Archives; Record Group 77. Textual Records from the War Department. Office of the Chief of Engineers 1818 - 09/18/1947, Box 162,163. Textual Archives Services Division, College Park, MD) 180-184; Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 42-43.

FMMR's secondary armament from the 1940 modernization program, a pair of six-inch wrap around shielded guns called Battery 230, was placed between the Endicott batteries of Jasper and Logan. Construction of Battery 230's two circular loading platforms and connecting casemated magazines was begun in the fall of 1942, but was delayed over the next few years since its guns were never supplied. Completed for a total cost of \$300,000 except for its missing armament in February, 1944, Battery 230 was transferred to FMMR's garrison who used its underground magazines as additional storage space.<sup>143</sup>



**Figure 3.111: January 20, 1944 U.S. Army Photograph of Battery 230's covered bunker and one of its circular loading platforms for its missing six-inch guns. Image shows the metal wrap-around shield that would protect its gun crew for enemy shrapnel sitting on wood timbers awaiting the arrival of the battery's armament. Courtesy of the National Archives, Record Group 338, Box 139, *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie, College Park, MD.***

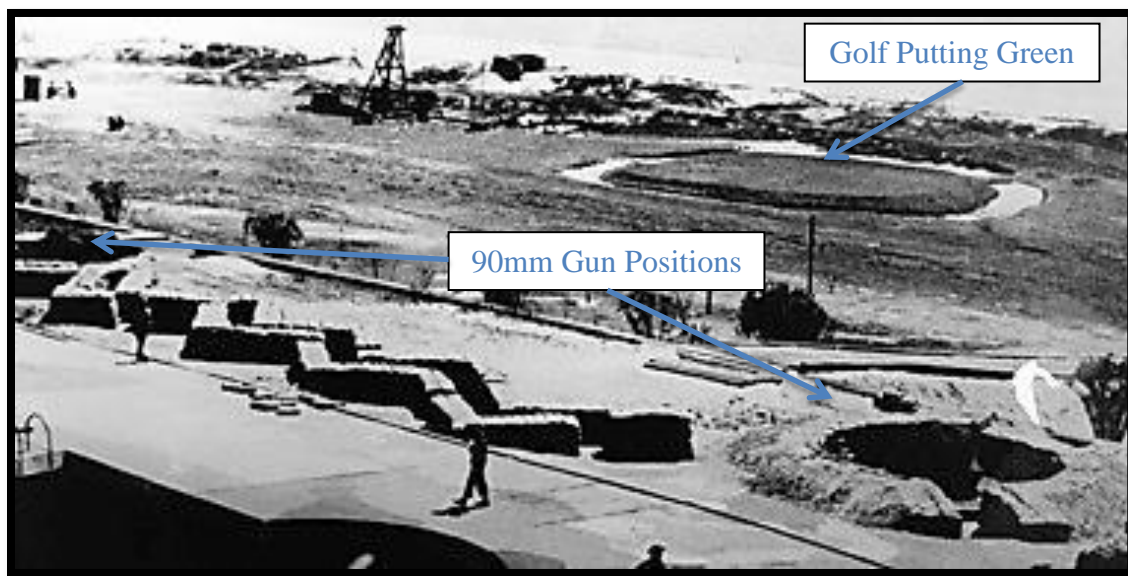
While FMMR's larger improvements were delayed, its smaller complimentary armaments were quickly added to the installation by the middle of 1943. The first addition was the installation of two sets of fixed 90mm rapid-fire dual-purpose anti-torpedo boat and anti-aircraft guns that had been received by the garrison during the

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<sup>143</sup> *Reports of Completed Batteries 1945: Battery 230* 31-33; Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 43.



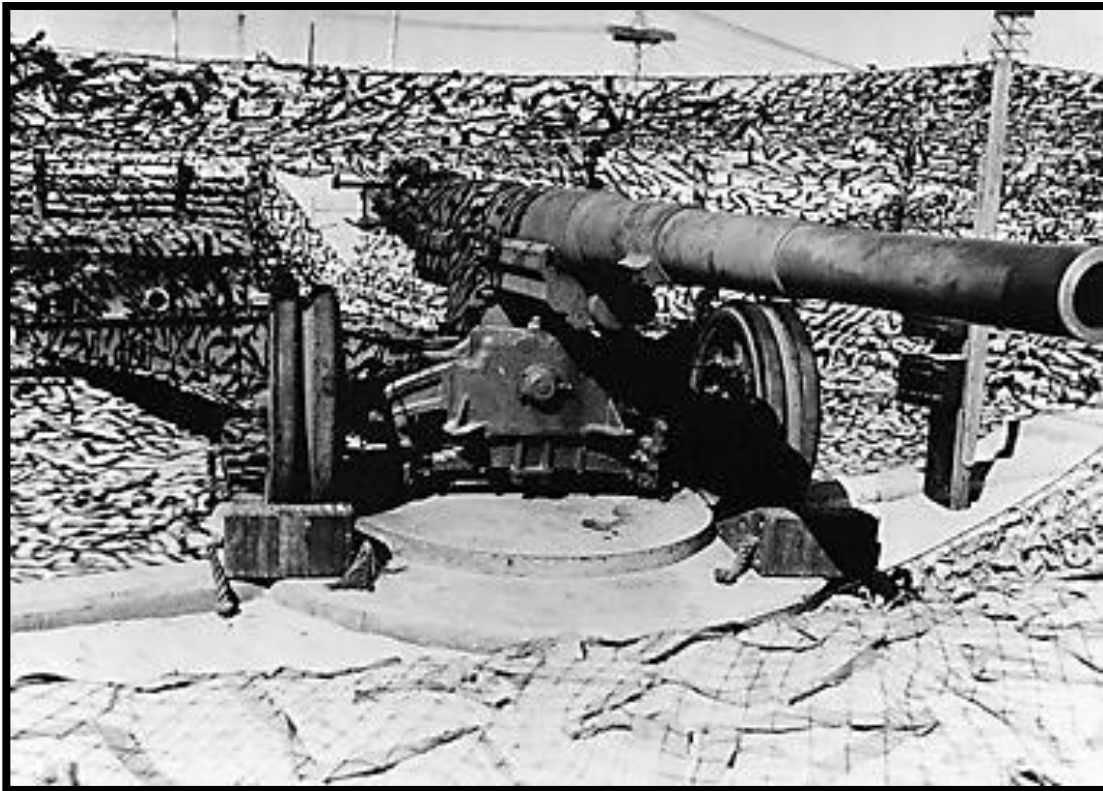
spring of 1943. Two guns each were placed along the forward slopes of Battery Jasper and Battery Huger creating a deadly crossfire that would deny enemy ships or aircraft entry to the harbor's channel. Each of these positions were protected by encompassing waist high sandbag walls that were connected to additional sandbag trenches built on top of the existing Endicott era batteries as seen in Figure 3.112.



**Figure 3.112: 1943 U.S. Army Photograph of the front slope of Battery Jasper with two fixed 90mm rapid-fire guns emplacements. Image shows the World War II camouflaged paint scheme that was applied to all of the exposed concrete of the Endicott batteries along with a golf putting green that was placed in front of Battery Jasper during the early 1940s. Courtesy of Fort Sumter NPS Archives.**

The second addition to the fort's smaller armament was the construction of four Panama gun mounts used to mount the mobile 155mm guns on a stable platform that allowed them to easily rotate their guns onto constantly moving enemy naval vessels. Developed before the war in the Panama Canal Zone, these simple semi-circles of concrete and metal ring platforms, allowed individual mobile guns to be mounted onto a permanent pintle that would allow the gun to traverse rapidly, similar to FMMR's other non-mobile coastal armaments.



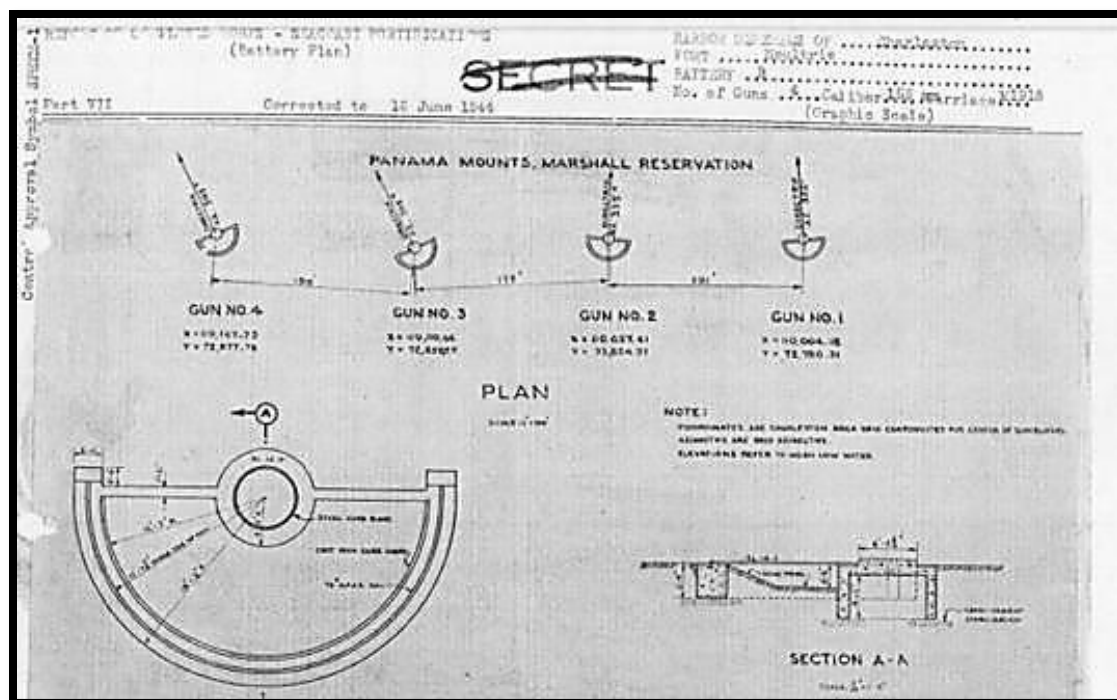


**Figure 3.113: 1943 U.S. Army Photograph of one of the four Marshall Reservation's Panama Mounts with 155mm mobile gun. Image shows the camouflaged netting using to hide the battery position in the beach dunes along Sullivan's Island northeastern coast. Courtesy of the National Archives, Record Group 338, Box 139, *General Correspondence Relating to Places, compiled 1936 – 1945*, Ft Moultrie, College Park, MD.**

The four Panama mounts were completed by the end of 1942 on the site of the Marshall Reservations existing mobile 155mm gun positions along the beach dunes on its northeastern coast. Immediately, the 263<sup>rd</sup> CA batteries responsible for FMMR's 155mm guns occupied and camouflaged the Panama mounts providing FMMR's only activated battery on the northern end of Sullivan's Island and further expanding the area that FMMR's armament could cover to the island's north.<sup>144</sup>

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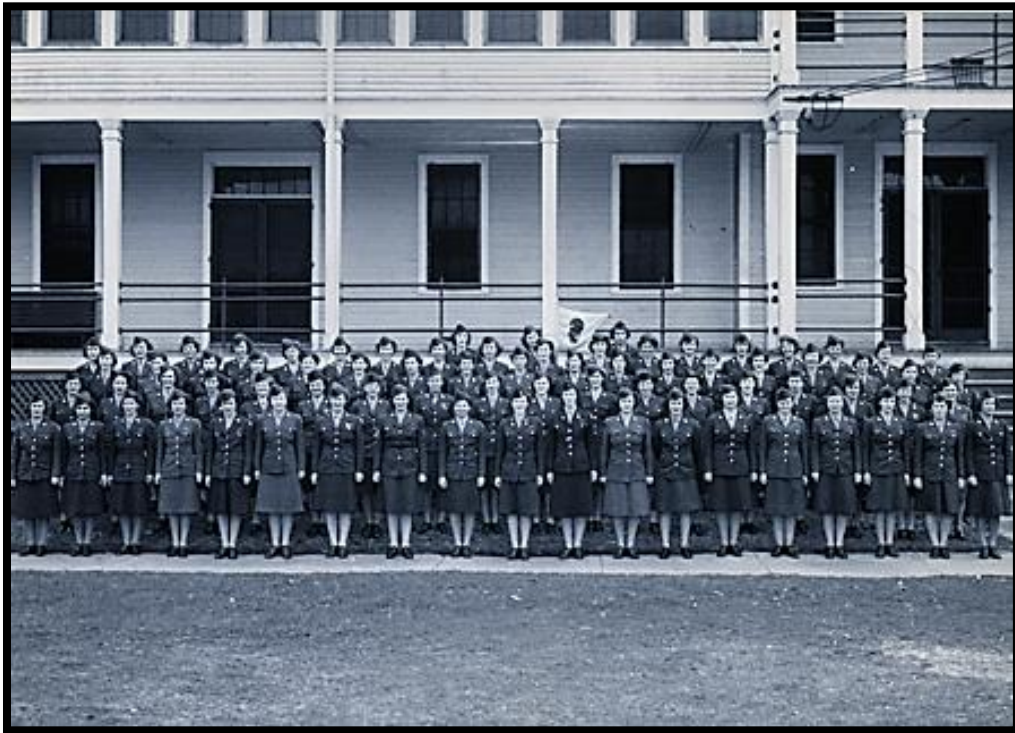
<sup>144</sup> *Reports of Completed Batteries 1945: Battery 155mm 29-30*; Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 43.



**Figure 3.114: 1945 U.S. Army Corps of Engineers Report of Completed Works for Charleston's Harbor Defense showing blueprint views of 155mm Panama gun mounts constructed on the Marshall Reservation in 1942. Courtesy of the National Archives, *Battery 155mm, Reports of Completed Batteries 1945*: Box 162,163. Office of the Chief of Engineers. Record Group 77; College Park, MD. 29-30.**

With the beginning of 1943, enemy threats to America's coasts had been significantly reduced, resulting in the nation's harbor defenses being greatly diminished to support manpower and equipment to the steadily advancing Allied forces across the globe. No longer requiring full manning, the FMMR's garrison was reduced as the 263<sup>rd</sup> CA Regiment's batteries were spread along the southeastern United States to replace units being reorganized for overseas deployment. Additionally, as harbor defenses became secondary in importance, the U.S. Army started to pull their general service personnel out of the CAC in order for them to be sent as replacements to U.S. Ground Forces. These healthy troops were replaced with limited service troops that were medically unfit for frontline duty. By the summer of 1943, the remaining units of

FMMR's 263<sup>rd</sup> CA Regiment was nearly entirely composed of new limited service personnel, required additional extensive training to educate them on their harbor defense duties. In addition to replacing personnel, the U.S. Army had issued final approval for disposing and salvaging FMMR's Endicott-era armaments during 1942-1943. During this period, all of Battery Huger, Jasper, McCorkle, Thomson, and Capron/Butler's aging equipment were deactivated and their concrete fortifications converted to alternative uses as searchlight or secondary gun platforms.<sup>145</sup> As the war continued with increasing Allies victories in late 1943, FMMR's shrinking garrison and defensive armaments resulted in vacant spaces for other military units and missions that could support the war effort.



**Figure 3.115: 1944 U.S. Army Photograph of FMMR's WAC Detachment in front of their barracks. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie*. Record Group 338, Box 85, College Park, MD.**

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<sup>145</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 41-45.

One of these new military units assigned to Fort Moultrie was created in early 1943, when the Women's Army Auxiliary Corps was converted into the Women's Army Corps (WAC), making it a part of the U.S. Army instead of just supporting soldiers like the USO and other civilian organizations. As a result of its first mobilization of volunteer female recruits, the U.S. Army developed a six-week basic training program at multiple locations across the United States. These basic training depots produced WAC units that were stationed at reservations both in the United States and overseas to replace men who could be redeployed to combat units.<sup>146</sup> Soon after WACs incorporation into the U.S. Army, FMMR's first detachment of seven WACs volunteers arrived to assist with filling vacant administrative and logistical positions in the post's diminishing garrison.



**Figure 3.116: 1944 U.S. Army Photograph of FMMR's WAC personnel reviewing financial records at the Commissary with a civilian employee, one of the numerous positions FMMR's WAC detachment executed during the war. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie*. Record Group 338, Box 85, College Park, MD.**

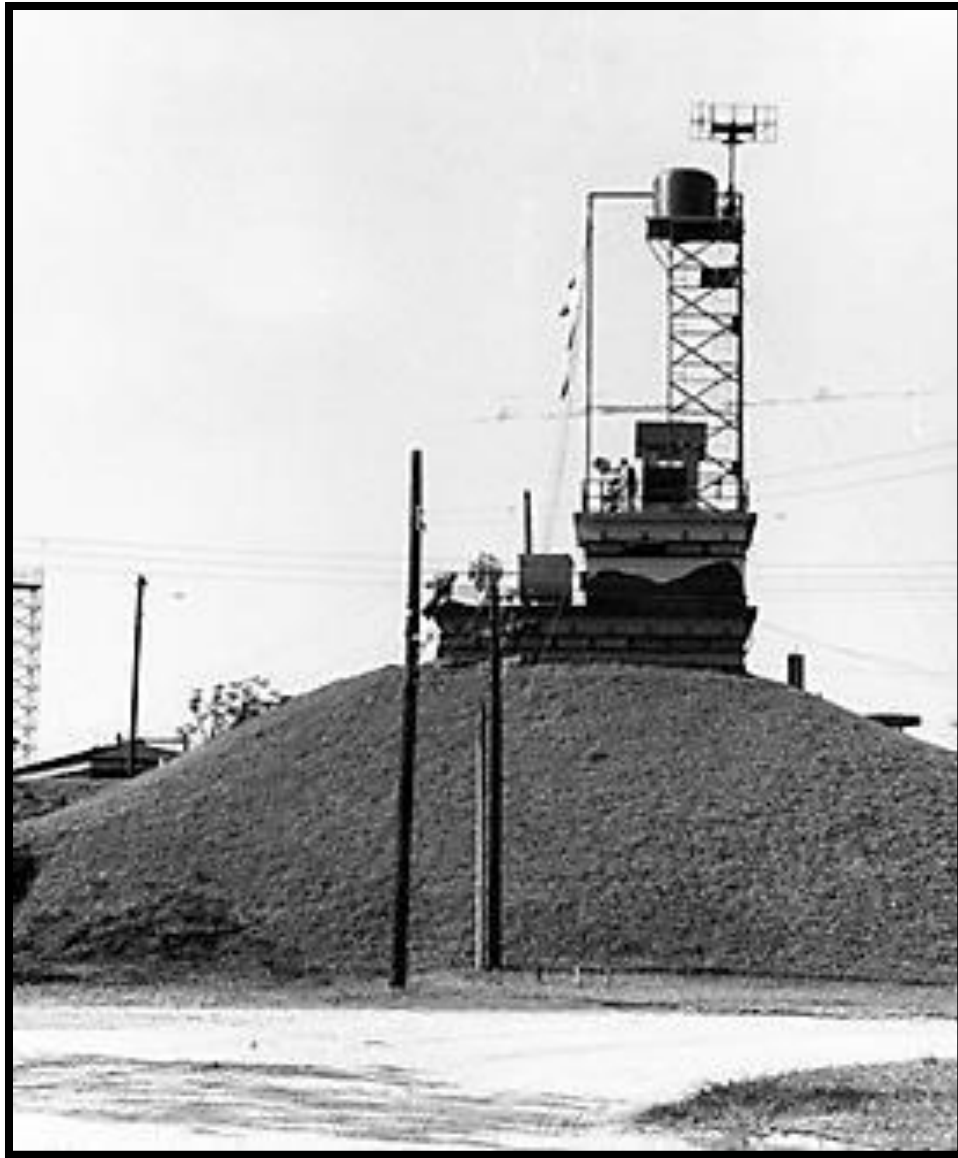
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<sup>146</sup> Judith A. Bellafaire. *The Women's Army Corps: A Commemoration of World War II Service*. CMH Publication 72-15 (Fort McNair, Washington, D.C.: U.S. Army Center for Military History, 2005)

FMMR's WAC detachment continued to increase over the next year until a total of over forty personnel were assigned in May 1944. The growing WAC detachment occupied the vacant single barracks building adjacent to the old band barracks and Battery Logan to provide a segregated area for their living and recreational quarters. On FMMR, the WACs replaced administrative staff at FMMR hospital, drove the post's ambulance, supervised the post commissary, guarded FMMR's two main entrances along Middle Avenue, and provided school bus escorts and crossing guards for the post's children being transported to and from school. FMMR's WAC detachment continued to execute these duties and supplement the remaining 263<sup>rd</sup> CA garrison in their duties during the war and immediately after the war.<sup>147</sup> Their dedication to duty and hard work during the conflict, presaged the creation of a dual gender force later in the twentieth century. This acceptance also matched the local and national evolution of women into the civilian workforces at military complexes like the local Charleston Naval Yards and other non-military civilian businesses, where patriotic women ably filled wartime job vacancies.

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<sup>147</sup> Stokeley. *Constant Defender* 90-91; *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954: WAC Detachment- Ft. Moultrie* (National Archives. Record Group 338, Box 139, College Park, MD)



**Figure 3.117: 1944 Photograph of newly constructed HECP/HDCP on the eastern side of Old Fort Moultrie. Image shows the signal station and observation rooms on top of the covered reinforced concrete bunker used to house the operations centers below ground. Courtesy of the Fort Sumter NPS Archives.**

Another change to FMMR military mission that occurred in the closing months of the Second World War, was the continued modernization of Charleston's HECP/HDCP command and control facilities. Receiving funds and directives in early 1943, FMMR leadership identified the opposite side of old Fort Moultrie as the construction site for a



As the Second World War was concluding, the U.S. Army continued to reduce harbor defense garrisons as they prepared for the rapid redeployment and demobilization of the nation's massive wartime forces. In October, 1944, the 263<sup>rd</sup> CA Regiment was deactivated and all of its personnel reassigned to the newly designated Harbor Defense of Charleston. This administrative reorganization allowed the U.S. Army to steadily reduce the numbers of soldiers assigned to FMMR over the remainder of the war without causing a respected National Guard Regiment, like North Carolina's 263<sup>rd</sup> CA, to become a skeleton organization. With the war's end in the summer of 1945, FMMR's garrison had been greatly reduced with only a few hundred limited service personnel who were quickly demobilized, leaving only a small caretaker force.<sup>149</sup> With the U.S. Army's post-war reorganization of the CAC back into a single Artillery Corps, and the advancement of aerial warfare in combination with amphibious landings, stationary concrete harbor defense fortifications from the first half of the twentieth century were declared obsolete and their installations were repurposed for military new uses.

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<sup>149</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 49.





**Figure 3.119: 1946 U.S. Army Photograph of soldiers fishing off an Army boat in Charleston Harbor while enjoying a week of vacation at the 3<sup>rd</sup> U.S. Army Recreational Center that operated for only a few months at FMMR. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie*. Record Group 338, Box 85, College Park, MD.**

As the U.S. Army steadily demobilized FMMR's remaining garrison in 1945-46, it recognized the installation's barracks and recreational resources would be a perfect location for the Third U.S. Army Recreational Center. Opening on July 13, 1946, FMMR's last military mission was as a relaxation camp for returning overseas Soldiers from Army posts throughout the southeastern United States that were sent to Sullivan's Island for a week of vacation. Over its short three months in operation, the Recreational Center hosted thousands of troops and provided them with a wide variety of activities and entertainment, like deep-sea fishing, athletic games, beach activities, and movies. But the U.S. Army's desire to reduce the number of its active military posts caused FMMR to be

selected for decommission in the fall of 1946, ending the short history of the 3<sup>rd</sup> U.S. Army Recreational Center on Sullivan's Island.<sup>150</sup> During the next few months, all U.S. Army property, not left for salvage or sale, was removed from FMMR leaving a vacant landscape with only a few remaining soldiers responsible for transferring the post to the War Asset Administration. On August 15, 1947, FMMR was officially deactivated by the U.S. Army, ending the one hundred and seventy years of the United States Army's defense of Charleston's harbor from Sullivan's Island.<sup>151</sup>



**Figure 3.120: August 15, 1947 Photograph of FMMR's Deactivation Ceremony held on post parade grounds and attended by remaining military personnel and civilian employees of Sullivan's Island. Courtesy of the Fort Sumter NPS Archives.**

<sup>150</sup> *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954: 3<sup>rd</sup> U.S. Army Recreational Center.*

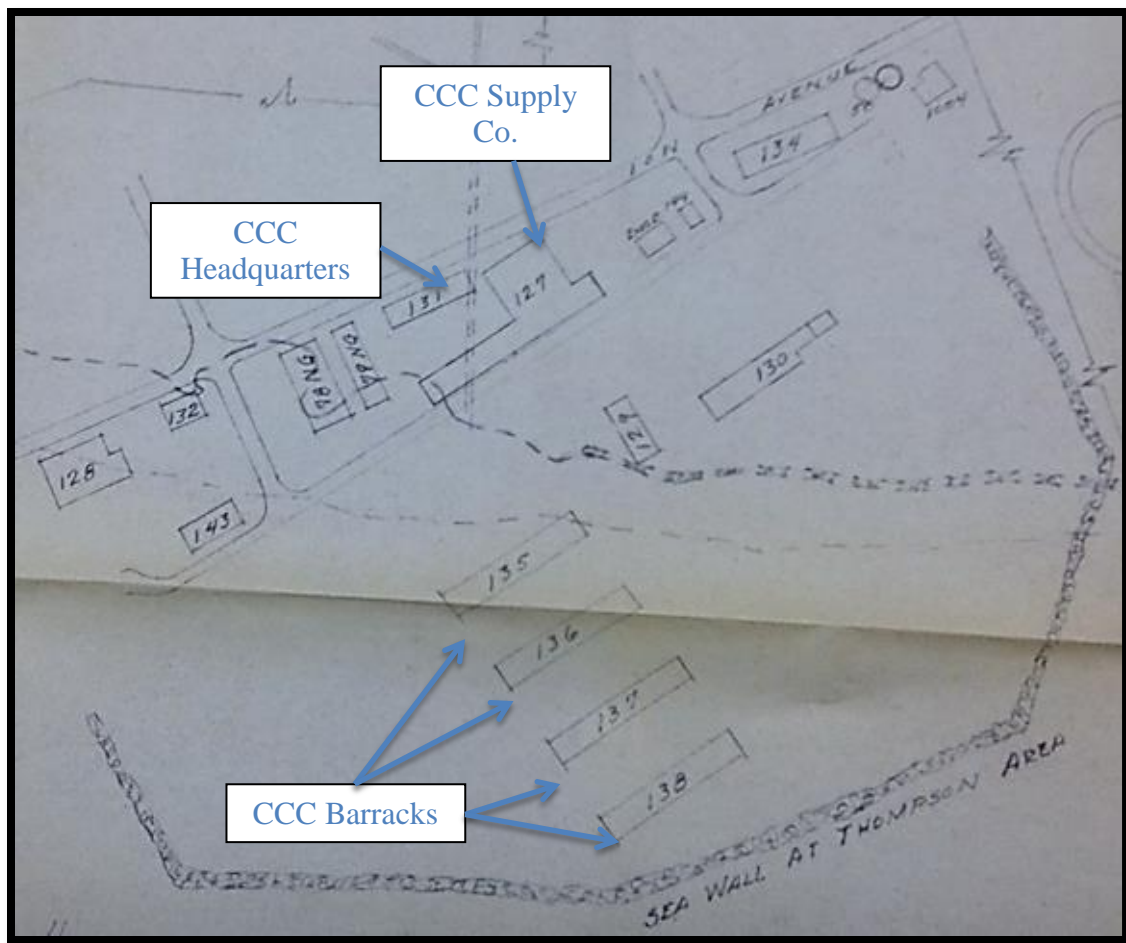
<sup>151</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 57; Stokeley. *Constant Defender* 93.

## Spatial Organization:



Figure 3.121: Spatial Layout of FMMR land use areas: Main Post 1934-1947. Source: author produced GIS/Photoshop basemap.

FMMR's numerous changing missions during this turbulent period in the nation's history caused the spreading of new training and cantonment areas away from the traditional main post to vacant spaces in the reservation's outlying areas. Early in this period, FMMR's leadership decision to use the unused lands around the Battery Gadsden/Thomson and Marshall sections of the reservation was based on the requirement to segregate these new missions from the post's garrison's mission. But, FMMR's rapid mobilization resulted in over 3,000 soldiers being assigned to the installation, causing the post leadership to assimilate these areas while also improving the existing main post's National Guard tent camp and constructing additional temporary structures wherever possible to support the larger garrison. Most of these additional structures were constructed in the western portion of the main reservation around the perimeter of the existing cantonment and the cove logistic areas in an effort to utilize space that had previously been vacant. In addition to these efforts to maximize the post capacity, certain key original Endicott-era administrative structures like the Post Hospital, Headquarters, and Guard House were expanded to assist with the post's enlarged mission. By the end of the Second World War, FMMR had filled up the post's original three hundred acres with numerous temporary mobilization camps that cluttered the installation's unique City Beautiful design elements.



**Figure 3.122: 1940 FMMR Quartermaster's Map of Battery Gadsden/ Thomson's 1934 constructed CCC Camp with labels giving their individual building numbers. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie. Record Group 338, Box 85, College Park, MD.***

The first change to FMMR's layout occurred in 1934, when President Franklin D. Roosevelt directed that the U.S. Army be responsible for the training and organization of individual CCC units. As the headquarters for a majority of South Carolina's CCC recruits, FMMR initially used the National Guard tent camp as its CCC mobilization area until a new camp could be constructed for their mission. Wanting to keep these civilians away from the FMMR's military garrison, the post leadership decided that a new CCC camp would be constructed around Batteries Gadsden and Thomson near Atlanticville.



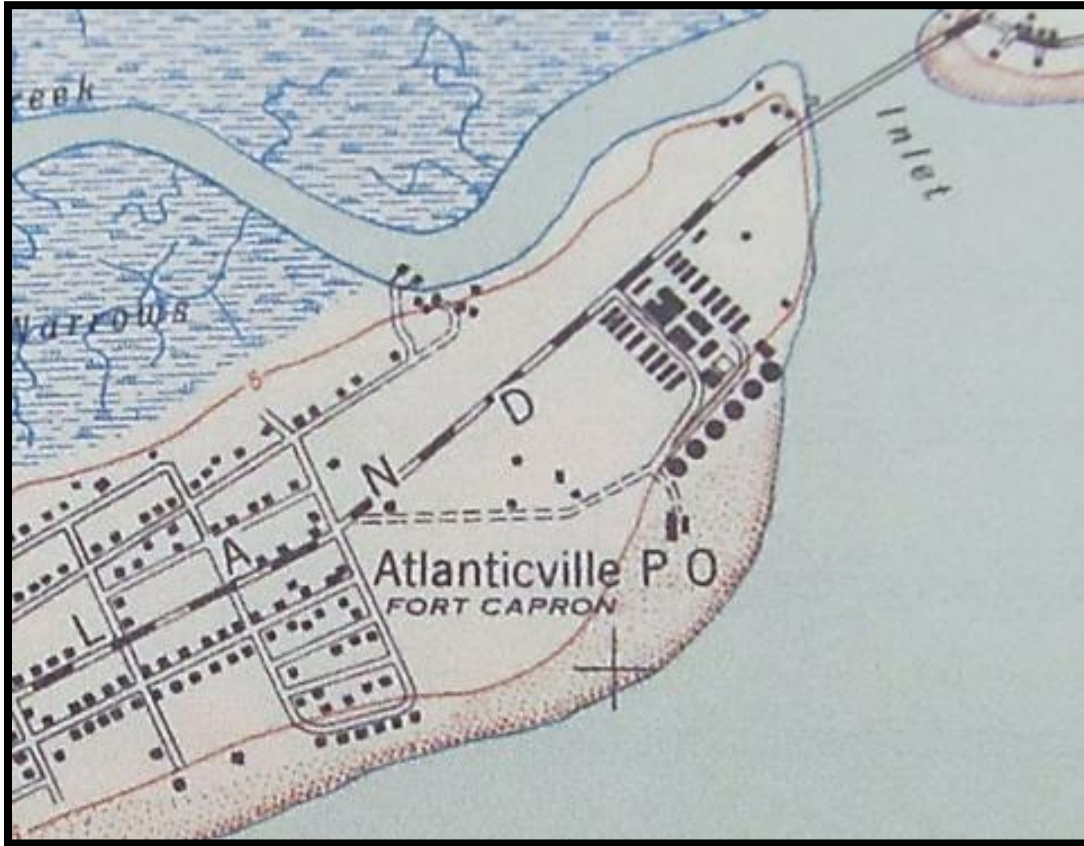
Utilizing improvements on the Army's Quartermaster World War I 600-series plans, the CCC recruits constructed their own area with administrative, living, supply, and recreational buildings throughout 1934.



**Figure 3.123: 1940 U.S. Army Quartermasters Corps' photograph of the Camp Exchange and Recreational Hall for the CCC Camp. Image shows the structure's raised post foundation, clapboard siding on a wood frame with a simple tarpaper roof. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

Established as a satellite part of FMMR, the CCC camp was arranged to fulfill the requirements needed by its civilian relief mission while respecting the military hierarchy of separate spaces for different ranks and uses that was enforced on the organization by its military supervisors. This temporary camp constructed of materials that were only supposed to have a lifespan of two years, were occupied by the CCC until 1938 when they were transferred to the War Department. Immediately, FMMR's Quartermasters used these temporary buildings to house the National Guard soldiers that were being

mobilized on the installation until FMMR's Atlanticville Endicott fortifications were decommissioned in 1943.<sup>152</sup>



**Figure 3.124: 1942 USGS Quadrangle 1:24,000 scale map of Fort Moultrie showing the northeastern part of Sullivan's Island and the Overseas Service Discharge and Replacement Depot located to the north of the base end stations. Courtesy of the Fort Sumter NPS Archives. College Park, MD.**

Another exterior area of FMMR developed before America's involvement in the Second World War was the Marshall Reservation's Overseas Service Discharge and Replacement Depot constructed in early 1940. Constructed to temporarily house incoming and outgoing soldiers completing required administrative paperwork and medical testing, FMMR's Quartermasters utilized the U.S. Army's recently published

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<sup>152</sup> *General Correspondence Relating to Places, compiled 1936 – 1945: FMMR's CCC Camp*; Lee. *A Tour of Historic Sullivan's Island* 60.

700-series temporary building plans. Under pressure to improve the minimalist World War I 600-series designs, due to the 1940s public's increased belief in what composed of healthy structures, the Quartermaster's new plans included interior electric lighting, improvements to heating and ventilation, and interior latrines. But even with these modern improvements in their designs, the 700-series camp layouts were more compact than previous temporary camps to reduce roads and utilities line lengths and the overall building time during this hurried mobilization period.<sup>153</sup> The Overseas Service Discharge and Replacement Depot followed these 700-series plans by placing four large administrative processing buildings in the center of the camp with two lines of eight barracks parallel to each other along the camp's perimeter. Constructed closely together, the camp only had two unimproved roads that separated the barracks from the administrative buildings and provided access for utility lines as seen in Figure 3.124. The Marshall Reservation's Overseas Service Discharge and Replacement Depot was operating only for a year before the Japanese bombed Pearl Harbor and the United States entered the war, causing the camp to be converted into barracks for the National Guard units being assigned to operate the Marshall Reservation's 155mm guns.<sup>154</sup> This densely arrayed camp of temporary wood frame 700-series structures was occupied until the end of the war and showcased the changes in U.S. Army's temporary camp layout from the more dispersed World War I camps.

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<sup>153</sup> Wasch, Bush, and Landreth et al. *World War II and the U.S. Army Mobilization Program* 7-11.

<sup>154</sup> *Special Investigation of the O D & R Depot Fort Moultrie 1941; Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

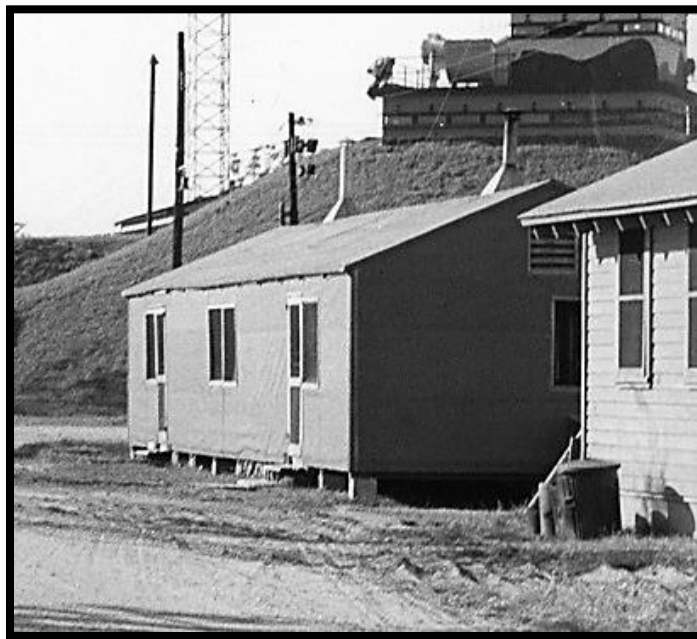




**Figure 3.125: 1940 U.S. Army Photograph of the FMMR' recently constructed Hutment area that replaced the National Guard Tent Camp. Image also shows remaining World War I era temporary two story barracks and one story elongated latrine buildings in the foreground along Middle Avenue. Courtesy of the Fort Sumter NPS Archives.**

As FMMR's 1940 garrison increased with the mobilization of the National Guard units for year-long commitments, the post's leadership needed to improve on the 1930s canvas tent city that was constantly damaged by the island's severe weather. Quickly erected along most of the existing grid of the National Guard tent camp, the Post Quartermasters constructed rows of hutments or rudimentary temporary plywood structures that provided modest one story sleeping bays that would house one half of FMMR's wartime three thousand man garrison. Even with this aggressive and simple mobilization construction campaign, FMMR quickly utilized all available space and had to construct a limited number of Modified Theater of Operations (MTO) buildings once war was declared. MTO structures were designed to have a shorter temporary lifespan

than the Quartermaster's 700-series plans with the basic one story structures having wider spaced wood framing covered in fiberboard and rolled felt sheathing that was quickly constructed across the world to house the military's expanding force. Most of these temporary structures were designed to fill FMMR's unused spaces and sited linearly along open spaces between existing roads and buildings as seen in Figure 3.126<sup>155</sup> Both of the early 1940s temporary soldier housing construction campaigns of FMMR's Hutments and the MTO buildings, were designed to be quickly constructed with minimal skilled labor along existing infrastructure with little concern of how these impermanent areas connected to the planned landscape of the pre-war installation.



**Figure 3.126: 1945 U.S. Army Photograph of MTO buildings adjacent to the new HECF/HDCP bunker to the east of Old Fort Moultrie. Image shows the temporary construction of the buildings with fiberglass and felt paper siding and concrete block foundations. Courtesy of Fort Sumter NPS Archives.**

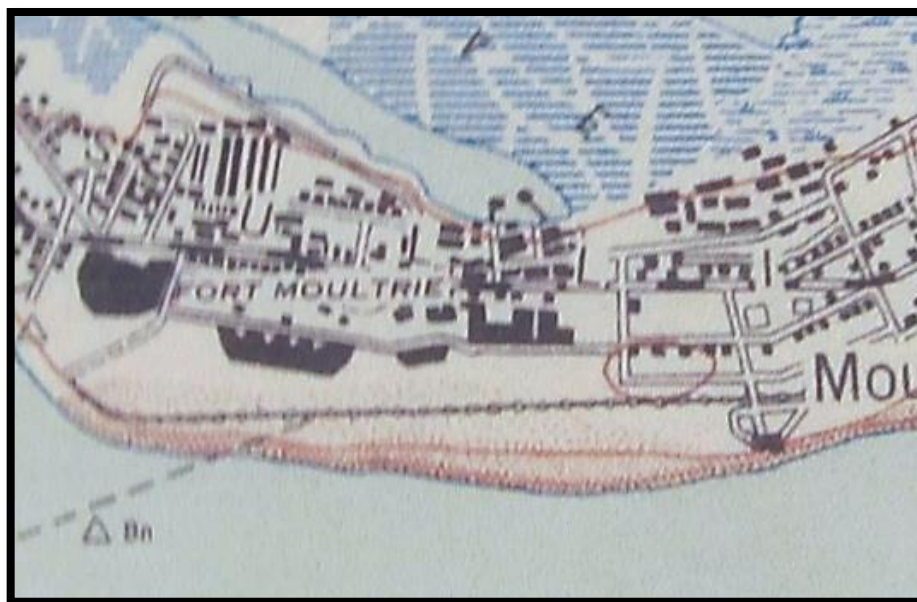
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<sup>155</sup> Berhow, Eastman and Smith. "Barracks, Bakeries, and Bowling Alleys" 541-544; Wasch, Bush, and Landreth et al. *World War II and the U.S. Army Mobilization Program* 45-47.

The last changes to the installation's layout during the final period in FMMR's military history was the expansion of existing areas by creating additions to standing permanent structures. Designed to match in appearance the original Endicott-era administrative and logistical buildings, these additions to the post headquarters, hospital, guardhouse, and post warehouses, were funded by the Works Public Administration in the late 1930s. These improvements were designed to help expand the post's command and control facilities at the same time FMMR and the nation expanded its military forces in preparation for war. Utilizing this civilian recovery fund to enhance the post's infrastructure, FMMR's leadership attempted to renew the importance of these core areas at the same time that the installation was becoming filled with temporary mobilization structures like hutments and MTOs as seen in Figure 3.127. But due to America's rapid entrance into the Second World War, FMMR became a mixture of aging Endicott-era zones with temporary encampment areas scattered across its landscape.<sup>156</sup> This dilution of FMMR's original Endicott post layout along with the removal of its primary military mission of coastal defense after the war, assisted in the U.S. Army's decision to decommission the post, instead of repurposing this aging installation of forty year old permanent structures and scattered recent temporary buildings for new military uses.

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<sup>156</sup> *Historic Building Record Cards for Fort Moultrie; Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*



**Figure 3.127: 1942 USGS Quadrangle 1:24,000 scale map of Fort Moultrie main post area showing the wartime increase of structures and the filling in of unused space on the installation. Courtesy of the Fort Sumter NPS Archives.**

#### Physical Setting:

FMMR's rapid growth during the years before and during the Second World War, resulted in significant alterations to the post's natural environment because of a U.S. Army refocus on landscape planning at the same time that conflict necessitated reinforcing post's perimeters. While the U.S. Army's Quartermasters had included landscaping as an important part of base layout planning from the early 1900s, in practice, installations had focused on construction of required facilities with little funds designed for plantings. In the early 1930s, as environmental conservation became increasingly significant with the Public Works Programs and the Civilian Conservation Corp, the U.S. Army's Quartermaster Corps established its Landscape Unit to provide landscaping guidance for all Army posts. This organization advocated that designed plantings could be used to "screen objectionable views; frame interesting views and

accentuate points of interest; separate functional areas; and moderate harsh environmental conditions through soil erosion control and planting trees for shade.”<sup>157</sup> To assist individual locations, the Landscape Unit published landscaping plans for standardized building plans that had lists of regionally appropriate plants that individual quartermasters could reference during their post’s landscaping improvements. During the late 1930s, FMMR leadership applied this guidance by funding numerous planting campaigns to reinforce the importance of its aging Endicott structures like the post’s headquarters, hospital, and other key administrative buildings as seen in Figure 3.128.<sup>158</sup> These efforts were suspended in early 1940 as all Army garrisons across the nation focused funding on building facilities to house the country’s expanding military forces.



**Figure 3.128: 1943 U.S. Army Photograph of FMMR Hospital with late 1930s foundation plantings of sabal palms and ligustrum bushes that matched the U.S. Army Quartermaster’s Landscape Unit’s typical landscape planting plans for hospitals. Courtesy of the Fort Sumter NPS Archives.**

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<sup>157</sup> E. Mack Hallauer. “Landscaping the Army Post” *The Quartermaster Review* (Ft. Lee, Virginia: July-August, 1939) 30-31; *Historic Photographs: Ft Moultrie/Sullivan Island Fort Sumter National Park*.

<sup>158</sup> U.S. Army Environmental Center. *Context Study* 57-61.

After war was declared in December 1941, and the threat of German bombardment and sabotage of American installations along the eastern seaboard continued into 1942, FMMR's leadership recognized the need to strengthen their boundaries to improve local security. The shattering of America's sense of detached safety after Pearl Harbor had resulted in the U.S. Army putting all of its units on full alert. At FMMR, this elevated level of security resulted in all of its armaments being fully manned, constant patrols along Charleston area's shorelines, and increased perimeter security around the installation. These additional measures included the full manning of checkpoints at both FMMR's entrances along Middle Avenue and the construction of seven-foot high chain linked fences topped by strands of barbed wire along all land approaches to the post.<sup>159</sup> While these security improvements made it more difficult for enemy saboteurs to access the post, it also caused significant alterations to the past open access relationship between Sullivan's Island civilian population and FMMR's garrison.

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<sup>159</sup> Gaines. "A History of Modern Coastal Defenses of Charleston, SC, Part II: The Harbor Defenses of Charleston in World War II" 35-36.





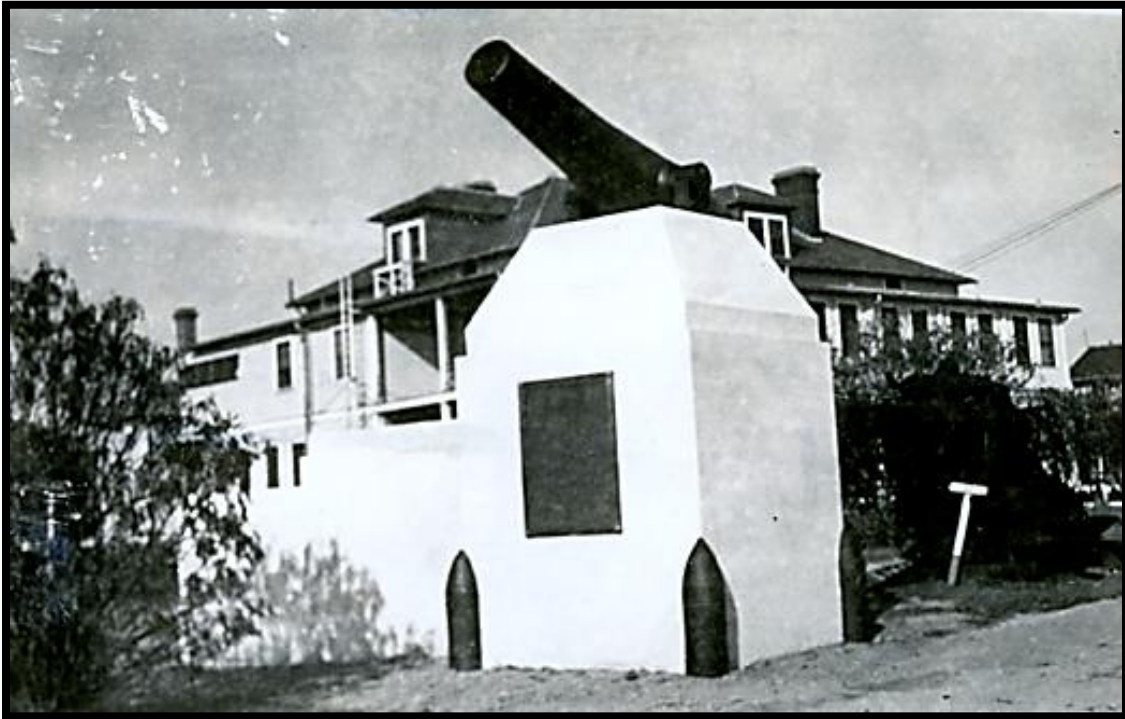
**Figure 3.129: Christmas, 1942 Photograph of FMMR's western entrance with checkpoint and guardhouse located in the center of Middle Avenue. Image also shows that two armed personnel, that had telephone access to the post guardhouse if reinforcements were needed, guarded the checkpoint. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie*. Record Group 338, Box 85, College Park, MD.**

During the war, all civilians who wished to traverse the island between Moultrieville and Atlanticville had to stop at FMMR's Middle Street's checkpoints to present identification and were subject to random searches in order to be allowed to enter and cross the military installation. Additionally, the island's previously open landscape became compartmentalized by FMMR's construction of over 2,500 feet of wire fences preventing civilians from entering parts of the installation that they had previously had access.<sup>160</sup> While civilians accepted these new security measures as part of FMMR's war efforts originally, the dependence of having to cross the installation to get to the only

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<sup>160</sup> *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954. Records of Equipment and the Conditions of Utility: Fencing 1942, FMMR General Orders regarding location of Guard Posts from 1941-1945* (National Archives, Record Group 338, Entry UD 35227, Box 84. College Park, MD)

mainland road access via the old Charleston Seashore electric railroad trolley bridge, resulted in Atlanticville and Isle of Palms residents pressuring their elected officials for a permanent bridge to be constructed to bypass FMMR and connect to Mount Pleasant.



**Figure 3.130: 1940 U.S. Army Quartermasters Photograph of FMMR's new entrance gate markers constructed of one side of the two reinforced concrete pillars holding up a Civil War Rodman artillery piece placed at each post entrances along Middle Avenue. Courtesy of the National Archives Record Group 77, Entry 393, Box 163, College Park, MD.**

In addition to constraining civilian access across the island, the heightened security and rationing of war supplies resulted in changes to FMMR's methods of delineating different areas to the post's garrison. Realizing the importance of recognizing Fort Moultrie's Civil War historical significance as increasing numbers of units mobilized at FMMR in 1940, the post's leadership ordered the construction of new permanent entrance gate markers to replace the World War I howitzers that had been installed twenty years earlier. The post Quartermasters supervised the construction of



four reinforced concrete pedestals and supporting walls placed adjacent to FMMR's boundaries along Middle Avenue. In order to provide a connection to the post's historic past, each of these markers had a Civil War artillery piece taken from storage inside Old Fort Moultrie and installed on top of them by the fall of 1940. The completion of these formal entrance markers with a bronze plaque attached on the front of each of them describing the installation's historic past, allowed for the removal of World War I howitzers and the permanent redesign of the fort's formal entrances.<sup>161</sup>



**Figure 3.131: June 26, 1942 Charleston News and Courier Photograph and Article about the salvaging of the four British Howitzers that had been placed next to FMMR entrances after the First World War along with over 100 decorative 19<sup>th</sup> century artillery shells. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie*. Record Group 338, Box 139, College Park, MD.**

<sup>161</sup> *Historic Building Record Cards for Fort Moultrie: Building 1000 Entrance Gates* (National Archives, Record Group 77; Box 162, College Park, MD)

FMMR contributed to national efforts of supporting the country's expanding war industry by holding scrap metal drives, which resulted in the salvaging of the four, 9.2-inch World War I siege howitzers and over one hundred nineteenth-century shells that had been used as decorative pieces across the post.<sup>162</sup> The removal of these original Endicott period markers, along with the decommissioning of the post's older batteries that had defined the post's early Endicott history began to illustrate the military's transformation away from permanent coastal fortifications for the future. Overall, this period of constructing permanent boundaries, increased landscaping campaigns, and the accumulation of new beach dunes and vegetation along FMMRs timber and stone seawall as seen in Figure 3.132, had transformed the natural setting of Sullivan's Island. The accumulation of all these alterations on the landscape resulted in a landscape that was significantly more developed from the barren sandy lots of scattered beach cottages that the U.S. Army had purchased at the beginning of the century.

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<sup>162</sup> "Goodbye Fort Moultrie, Hello Japan" *Charleston News and Courier* June 26, 1942; *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954: July 21, 1942 Press Release*.



### Circulation Routes/ Post Utilities:

Similar to the continued development of FMMR's physical setting during the years surrounding the Second World War, significant improvements to the area's transportation networks and advancement in modern utilities altered the island's landscape. As one of national priorities of the 1930s New Deal programs, improvements to the country's transportation systems had a direct impact on FMMR's external and internal circulation routes. Additionally, as the nation prepared for its involvement in the Second World War, military budgets increased giving FMMR's Quartermasters the funds to update overloaded and outdated utility networks. These enhancements provided adequate infrastructure to support the installation during the four years of war and required less maintenance as FMMR's garrison was steadily reduced and the post eventually decommissioned.

The period's major improvements were to the external transportation networks that connected Sullivan's Island and Charleston itself to the rest of the nation. The national government's stimulus of New Deal infrastructure improvements during the 1930s and into the 1940s had brought a transportation boom to the mostly rural farmlands of South Carolina. By the end of the war, a web of 10,000 miles of paved highways connected Charleston to the rest of the state's major cities and the nation as a whole.<sup>163</sup> Continuing to improve on the nation's interstate transportation networks, the U.S. Congress in the 1930s authorized the construction of the Intracoastal Waterway that would connect the ports along the southeastern Atlantic coast from Virginia to Florida.

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<sup>163</sup> Kovacik and Winberry. *South Carolina: The Making of a Landscape* 121.

Using existing protected coastal channels like the marsh areas separating Sullivan's Island from Mount Pleasant, the seven foot deep waterway allowed ship barge traffic to safely travel along its length without heading out into the stormy Atlantic Ocean. This protective transportation network became even more significant in the 1940s as German submarines hunted for commercial shipping off the Atlantic coast, but couldn't disrupt the barges moving along the Intracoastal Waterway.<sup>164</sup>



**Figure 3.133: 1945 U.S. Army Photograph of the Ben Sawyer Bridge being built to connect Mount Pleasant and the center of Sullivan's Island via a new asphalt highway. Courtesy of the National Archives, *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie*. Record Group 338, Box 139, College Park, MD.**

The 1930s construction of the Intracoastal Waterway behind Sullivan's Island signaled the end of the aging Cove Trolley Bridge, whose fragile timber bridging piers were deteriorating rapidly from the increased stresses from both automobile and barge traffic. As a result of its failing condition and the increasing political pressure that Atlanticville and Isle of Palm residents were pressing on their elected officials, the South

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<sup>164</sup> Lee. *A Tour of Historic Sullivan's Island* 41, 84-85.

Carolina Department of Transportation authorized the construction of a new asphalt highway that would connect Mount Pleasant to the center of Sullivan's Island and cross the Intracoastal Waterway via a new swing drawbridge. The Ben Sawyer Bridge was constructed in the first half of 1945 and was heralded by both the island's civilian and military residents because it made access to the island much easier and safer than before. The immediate impact of having a permanent asphalt road and bridge capable of conveying high tonnage across the Intracoastal Waterway had on FMMR was that no longer did everyone visiting Sullivan's Island have to traverse the military reservation between Station 12 and 18. Additionally, most of FMMR's military supplies could now be driven to the installation instead of being transported by the fleet of Army vessels that had been operating between Charleston's docks and FMMR's Quartermaster docks since the fort's original construction.<sup>165</sup> The combination of these external transportation improvements enabled the rapid mobilization and wartime support of Charleston's harbor defenses and prompted FMMR's leadership to reevaluate the post's internal transportation network.

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<sup>165</sup> *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie: Ben Sawyer Bridge* (National Archives, Record Group 92, Box 363. College Park, MD); "Bridge to Sullivan's Island to be Opened Monday A.M.," *The Charleston Evening Post*. June 14, 1945.



**Figure 3.134: 1943 U.S. Army Photograph of Middle Avenue near FMMR's Stone Chapel looking east towards Moultrieville. Image shows the post's sixteen-foot wide primary route that was originally constructed of layers of concrete and crushed stone pavement in 1903-04 that has been able to withstand the post's heavy traffic loads over its history. Courtesy of the Fort Sumter NPS Archives.**

At the beginning of the 1930s FMMR's existing network of primary avenues, constructed according to the original Endicott era layout of military installations, still consisted of bituminous layers of concrete and crushed stone as seen in Figure 3.134. The post's secondary narrow-service roads were unimproved, mainly a mixture of gravel and sand. Recognizing this as the major shortfall in their transportation network, FMMR's 1930s leadership directed FMMR's Quartermasters to use available CCC labor and WPA funds to update FMMR's secondary roads to the same material makeup of the post's primary routes. As a result by the end of the war, over ninety percent of the

installation's four miles of roadways would consist of the recommended concrete and stone composition with the remainder ten percent converted to all gravel.<sup>166</sup>

Another transportation focus of FMMR's leadership during the middle of the 1930s was the repairing of the installations docks that had withstood over thirty years of damage from numerous hurricanes and normal wear and tear. The Engineer dock, being the only one located on the ocean side of the installation, had sustained significant damage by the late 1930s and was abandoned when the U.S. Army's 1940s modernization recommendations reduced the role of electrical controlled mines in harbor defenses.<sup>167</sup> The two Quartermaster docks built in 1903 on the cove side of the installation had sustained more wear and tire damage due to their heavy support role over the past thirty years. The larger of the two docks, located on Station 16 ½, was rebuilt with new wood decking and a 1,300 square foot rebuilt wharf house located at the end of the dock.<sup>168</sup>

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<sup>166</sup> *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954. 1943 Records of Equipment and the Conditions of Utility Roads; Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

<sup>167</sup> *Engineer Dock. Reports of Completed Batteries 1945: Engineer Dock*

<sup>168</sup> *Historic Building Record Cards for Fort Moultrie: Building 38 Wharf/Dock and Building 38A Wharf House* (National Archives, Record Group 77; Box 162, College Park, MD)





**Figure 3.135: 1940 U.S. Army Quartermasters Photograph of FMMR's Coast Guard Dock and Boat Hoist constructed in 1935 to the northeast of the Quartermaster's Dock. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163, College Park, MD.**

The other quartermaster dock that had been previously been located to the east of the main larger quartermaster dock was replaced in 1935, with a dock and covered boat hoist that was designated for use by the Coast Guard. Sullivan's Island early twentieth century life-saving station had developed over the decades into one of the Charleston area's Coast Guard stations and needed berthing for its vessels that were responsible for protecting the local waters. During the 1930s, the Coast Guard reached an agreement with FMMR to have a dock constructed that would support two of their boats. Overall during this period, the limited reconstruction of only one of the original three docks that provided logistical support to FMMR throughout its early history illustrated that the installation's resupply methods had started to shift to automotive transportation assets even before the 1940s.<sup>169</sup>

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<sup>169</sup> *Historic Building Record Cards for Fort Moultrie: Building 81 Coast Guard Dock and Boat Hoist* (National Archives, Record Group 77; Box 162, College Park, MD)

As the national military budgets increased in the late 1930s with preparation for war, FMMR's Quartermasters were able to distribute funds and make limited improvements to the installation's utilities systems. Most of these small projects revolved around installing replacement plumbing, lighting, and heating fixtures for the post's permanent living quarters that had become outdated and inoperable since their installation close to thirty years before.<sup>170</sup> But, as the post increased its temporary mobilization housing during the Second World War, limitations of the post's water and sewage system became apparent.

The 1940s construction of the Overseas Replacement and Discharge Depot on Marshall Reservation was required to house an average of fifteen hundred soldiers and civilian employees. This created a major conflict with the Sullivan's Island civilian government over water and sewage usage, which resulted in local U.S. Senators and the Secretary of Defense negotiations immediately after opening. Understanding that FMMR's main post water and sewage system would not be able to reach the new depot, the U.S. Army before construction had contracted with the Sullivan's Island Township commissioners to supply all of the Marshall Reservation's water needs from their newly constructed WPA-funded water treatment plant. Soon after the depot had been built, the Township commissioners realized that the Army's requirement of over 80,000 gallons per day put significant strain on their resources. This resulted in the township limiting its daily output for the Depot to only 30,000 gallons a day. This significant shortfall in running water resulted in severe water rationing. At the same time, the depot's

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<sup>170</sup> *Annual Reports of Construction and Repair of Utilities from 1939-1941. FMMR* (National Archives. Office of the Chief of Engineers 1818 - 09/18/1947, Record Group 77; Box 162-163. College Park, MD)

insufficient sewage systems deposited waste into the back cove area that was pulled through Breach's Inlet and on to the island's northern beaches.

This sanitation problem became well publicized over the summer of 1940, resulting in significant discord between FMMRs military commanders and Sullivan Island's civilian officials. These problems were rectified with the depot's contract to get additional water support from Isle of Palm's water system and the construction of a military sewage treatment plant on the cove-side of the Marshall Reservation that prevented raw sewage from polluting the island's coastline.<sup>171</sup> The rapid construction of the large capacity Overseas Discharge and Replacement Depot on the remote Marshall Reservation during this period, showed the difficulties in providing basic utilities in the midst of the nation's unprecedented military mobilization. In previous wars, sewage discharge would not have been a consideration, but by the 1940s the American public had come to expect running water and adequate waste water systems inside military encampments.

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<sup>171</sup>*General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie: June 25, 1940 Report on Water Supply Problems*



**Figure 3.136: 1943 U.S. Army Photograph of FMMR's Theater with the post's newly constructed elevated water tower in the background that was constructed to improve the installation's water distribution and storage system. Image also shows the limited 1930s landscaping that was planted around the post's main entertainment venue in accordance with the U.S. Army Quartermasters' Landscaping Unit's guidance. Courtesy of the Fort Sumter NPS Archives.**

The second limitation to the post's water supply system became apparent in the fall of 1941. The installation was at full capacity with numerous National Guard regiments and over half of the FMMR garrison located in the newly converted hutment area. As a result, water pressure was greatly reduced. To solve this problem, the post Quartermasters contracted the construction of the post's second elevated steel water tank to be located behind the post theater. Upon its completion in early 1942, the tank was connected to the post's pump house and became responsible for supplying running water

to the western half of the post, rectifying the main post's water pressure and supply problems for the remainder of the war.<sup>172</sup>

The nation's New Deal programs and the country's total industrial mobilization during the Second World War dominated this period of FMMR's infrastructure development. These efforts resulted in the creation of new exterior and internal transportation routes highlighted in Figure 3.137. The nationwide promotion of paved highways to connect all parts of the country during this period, provided new route to access Sullivan's Island. While other transportation and utility projects provided visible improvements for the post's garrison during this period, rearrangement of the road access to the center of Sullivan's Island, with its modern Ben Sawyer Bridge, was very significant to its future. The transportation improvement caused a major shift in the island's military and civilian relationship, foreshadowing FMMR's reduced importance, not only to the U.S. Army's but also the island's civilian residents, who no longer interacted with the post's garrison as much as in the recent past.

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<sup>172</sup> *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie: November 12, 1941 Memorandum for the Contract to Construction an Additional Steel Water Tank*



## Structures:

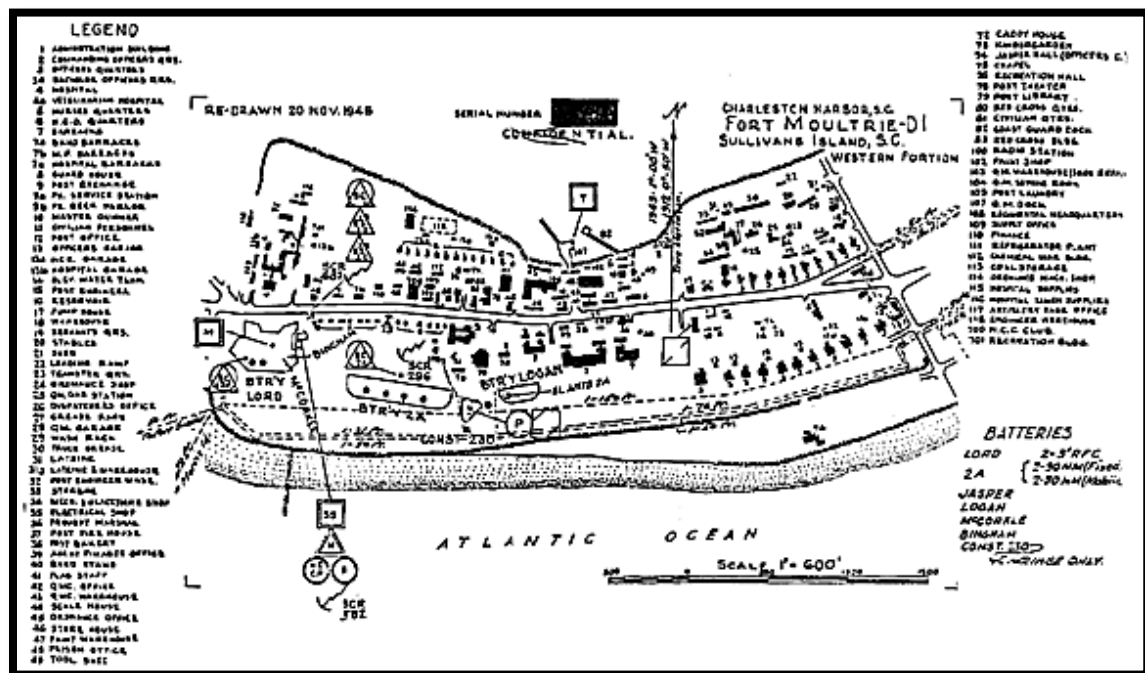


Figure 3.138: 1945 Coastal Artillery Corps Map of FMMR Main Post structures. Image shows WWII mobilization construction filled in most of the installation's previous open spaces. Courtesy of the Fort Sumter NPS Archives.

The development of over one hundred additional structures during this Second World War period resulted in a noticeable increase in building density, as seen in Figure 3.138. Temporary mobilization structures to house, train, and care for the rapidly escalating numbers of civilian-military forces assembled on Sullivan's Island, resulted in many different types of military construction. Beginning with the 1934 CCC camp of improved 600-series structures, to the 1940 Marshall Reservation's Depot's 700-series camp layout, to the 1941 conversion of National Guard Tent area into the Hutment and Modified Theater of Operations buildings, FMMR campaigns showed the Army's evolution of temporary buildings that reflected the different building expectations and the



use of alternate materials due to wartime rationing.<sup>173</sup> While most of the FMMR's structures constructed during these various campaigns consisted of barracks to provide shelter for mobilizing troops, a limited number of buildings were constructed to provide support and recreational facilities for the improvement of the entire post.



**Figure 3.139: 1940 U.S. Army Quartermasters Corps' photograph of the newly constructed Post Exchange Complex located on the southern side of Middle Avenue and across from the Post Theater. Courtesy of the National Archives RG 77 *Chief of Quartermasters* Entry 393 Box 163. College Park, MD.**

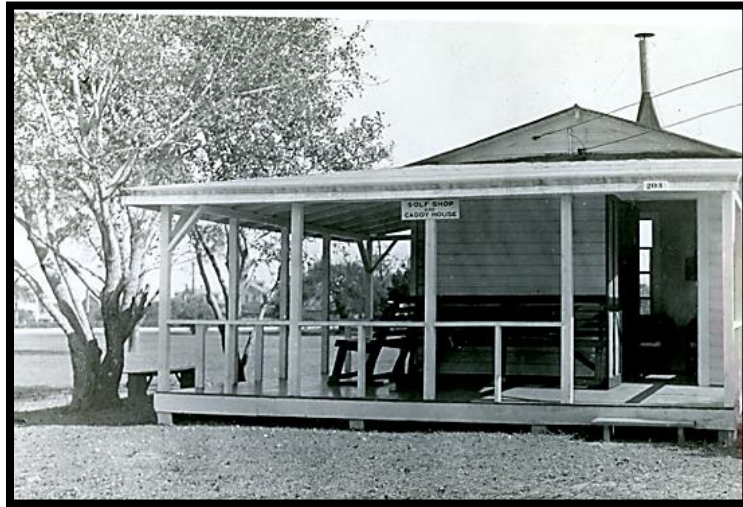
The first structure constructed to improve garrison's life during this period, was the 7,000 square-foot Post Exchange and Recreation Hall, built in 1936. This replaced the original Endicott-era Exchange and Post Gymnasium that had served as the main enlisted men's recreational and relaxation area for the past thirty years. Only a few years before 1936, FMMR Quartermasters' had built a Post Theater and Library along Middle Street to create a post leisure area closer to the majority of the garrison's quarters. By

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<sup>173</sup> Wasch, Bush, and Landreth et al. *World War II and the U.S. Army Mobilization Program* 25-34, 45-49; U.S. Army Environmental Center. *Context Study* 51; Berhow, Eastman and Smith. "Barracks, Bakeries, and Bowling Alleys" 541-544.



attaching two wings on the adjacent fifteen hundred square-foot YMCA structure, the new Post Exchange and Recreation Hall became the centralized location for all of the reservation's athletic and recreational programs. FMMR's largest support structure consisted of three sections: its east wing was converted into a six-lane bowling alley, its central section was converted into the post exchange store, and its west wing contained in an open hall with a raised stage. The wood framed building was placed on a raised brick foundation, with wood clapboard siding, and a standing seam metal roof, making it similar to the post's other permanent structures. From its opening in the summer of 1936, until the decommissioning of the post in 1947, the Post Exchange and Recreation Hall was the focus of FMMR's entertainment scene. Weekly dances, traveling shows, and other forms of amusement kept the garrison's soldiers entertained in their free time.<sup>174</sup>



**Figure 3.140: 1940 U.S. Army Quartermasters Corps photograph of the post's golf shop and caddy house constructed by the garrison behind the Officer's Quarters and adjacent to the post's tennis courts. Courtesy of the National Archives RG 77 Chief of Quartermasters Entry 393 Box 163. College Park, MD.**

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<sup>174</sup> *Historic Building Record Cards for Fort Moultrie: Building 53 Post Exchange and Recreational Hall* (National Archives, Record Group 77; Box 162, College Park, MD); *General Correspondence Relating to Places, compiled 1936 – 1945, Ft Moultrie: FMMR's Post Exchange and Recreational Hall Activities and Events 1936-1945.*

The 1930s Army policies promoting athletic opportunities to keep soldiers physically fit for combat, resulted in the creation of numerous FMMR sponsored sports teams. Athletic playing fields were constructed in available open spaces around the post, like the parade grounds and areas in front of decommissioned Endicott batteries. By the late 1930s, there were obstacle courses, numerous baseball fields, basketball, volleyball and tennis courts, along with segregated officer and enlisted lifeguarded beaches. This allowed off-duty personnel diverse opportunities to relax or compete against other local area sports teams.<sup>175</sup> One unique structure was the FMMR's Golf Shop and Caddy House, located in the open area between the Officer's Quarters and Middle Avenue. Constructed and paid for by interested soldier-golfers, all materials used in this small four hundred square-foot wood-framed structure were salvaged from abandoned island buildings. With post expansion, golf club membership rose, enabling the construction of a one-hole golf course. Its fairway was in front of Battery Logan and its circular green placed in front of Battery Jasper. In 1941, a soldier, who had been a civilian professional golfer, became the course professional and greens keeper. He was responsible for collecting annual dues and testing interested players on their knowledge of the game before they were allowed to use the course and post golf equipment.<sup>176</sup> The history of the first and only golf course built on Sullivan's Island, shows the importance that military leadership and the garrison placed in providing post's athletic programs. Additionally, the expansion of athletic resources and the variety of recreational opportunities for the

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<sup>175</sup> *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie: Post Recreation Programs and Results from 1941-1945*

<sup>176</sup> *Historic Building Record Cards for Fort Moultrie: Building 203 Golf Shop and Caddy House* (National Archives, Record Group 77; Box 162, College Park, MD); *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie: FMMR Golf Course Rules and Information.*

increasing numbers of World War II soldiers, undoubtedly led to a need for sports programs and playing fields in their hometown communities after the war.



**Figure 3.141: 1943 U.S. Army Photograph of the newly constructed Post Gymnasium built behind the Post Exchange and Recreational Hall. Courtesy of the Fort Sumter NPS Archives.**

During the last years of the war, the popularity of indoor recreational space for basketball and other activities during inclement weather resulted in the eventual construction of a four thousand square-foot gymnasium directly behind the Post Exchange and Recreation Hall. Further expanding the post's recreational facilities, this structure was one of the last constructed on the post. Completed in 1943, this temporary building had a concrete foundation that supported a central two-story activities space with attached one-story side wings. The hall was constructed of wood framing and plywood siding with a felt paper roof. It was extensively used by the declining post garrison and the Third U.S. Army soldiers who visited the post's Recreational Center in 1946. The

structure held basketball tournaments and amateur boxing matches.<sup>177</sup> The recreational facilities built by FMMR's Quartermasters during the last two decades of installation's active military history were unique to Sullivan's Island when compared to other small towns in South Carolina. They were some of the first ball fields, golf courses, bowling alleys and large gymnasium to be constructed. The U.S. Army's 1930s decision to include these athletic amenities in their installation's layout exposed countless Americans to activities that they had never played before and resulted in their expansion across the nation after the war.



**Figure 3.142: 1944 U.S. Army photograph of the Post's new church located on the triangle lot at the intersection of the Middle and Central Avenue. It was constructed according to a 700-series standardized plan late in the war to enlarge the post's religious facilities. Courtesy of the Fort Sumter NPS Archives.**

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<sup>177</sup> *Historic Photographs, Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

The last structure built on FMMR was a church. It was completed in March, 1944, to create a larger capacity building, which replaced the small nineteenth century stone chapel that the Army originally acquired in 1902. The Quartermasters selected the prominent triangle lot on Station 17 that had been formed by the Army's 1906 decision to alter the posts eastern entrance by building the extension of Middle Avenue. The U.S. Army Quartermaster's 700-series church design had been recommended for construction on all military installations by Mrs. Eleanor Roosevelt, the president's wife. She hoped to raise troops' morale with military churches that looked similar to ones in their hometowns. The new church was wood framed with clapboard siding, numerous large windows on the nave walls, and a modest steeple over the front entrance. With the shrinking post-war garrison, the Post Chaplain closed up the old stone chapel and held services in the new chapel for only three more years before FMMR was decommissioned.<sup>178</sup>

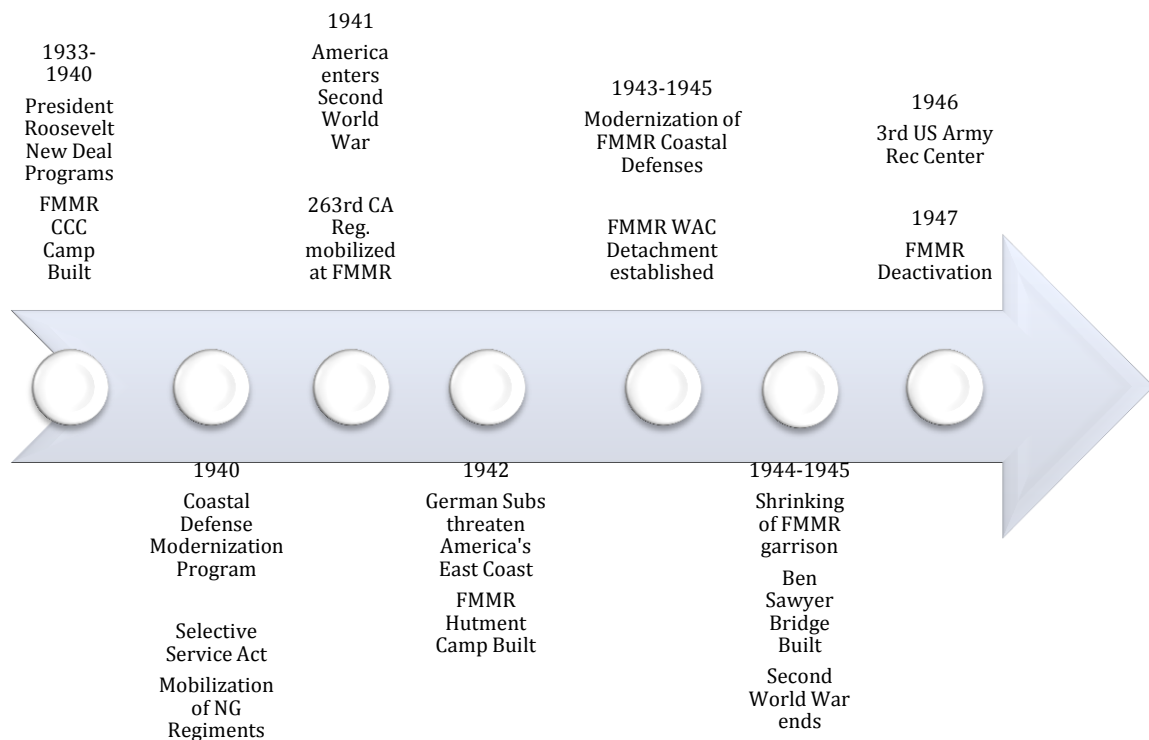
The last military period featured numerous changes to the expanded Sullivan Island environment. These primarily resulted from the expanding New Deal economic programs, the nation's mobilization for war, and finally the Army's Relaxation Center. As the U.S. Army reevaluated its needs for bases for the emerging Cold War, coastal artillery installations were analyzed for possible repurposing for new military missions. FMMR's lack of available expansion space along with a majority of structures reaching the end of their military usefulness lifespan, resulted in the Army's 1947 decision to

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<sup>178</sup> *Records Concerning Posts, Camps, and Stations, compiled 1945 – 1954 Fort Moultrie: New FMMR Church Construction/Dedication; Wasch, Bush, and Landreth et al. World War II and the U.S. Army Mobilization Program 62.*

decommission the installation. The entire three hundred acres of the military reservation along with all structures and permanent supporting infrastructure was turned over to the War Assets Administration, who would be responsible for figuring out an appropriate civilian reuse of this historic military landscape.

### FMMR Fourth Period of Development Timeline



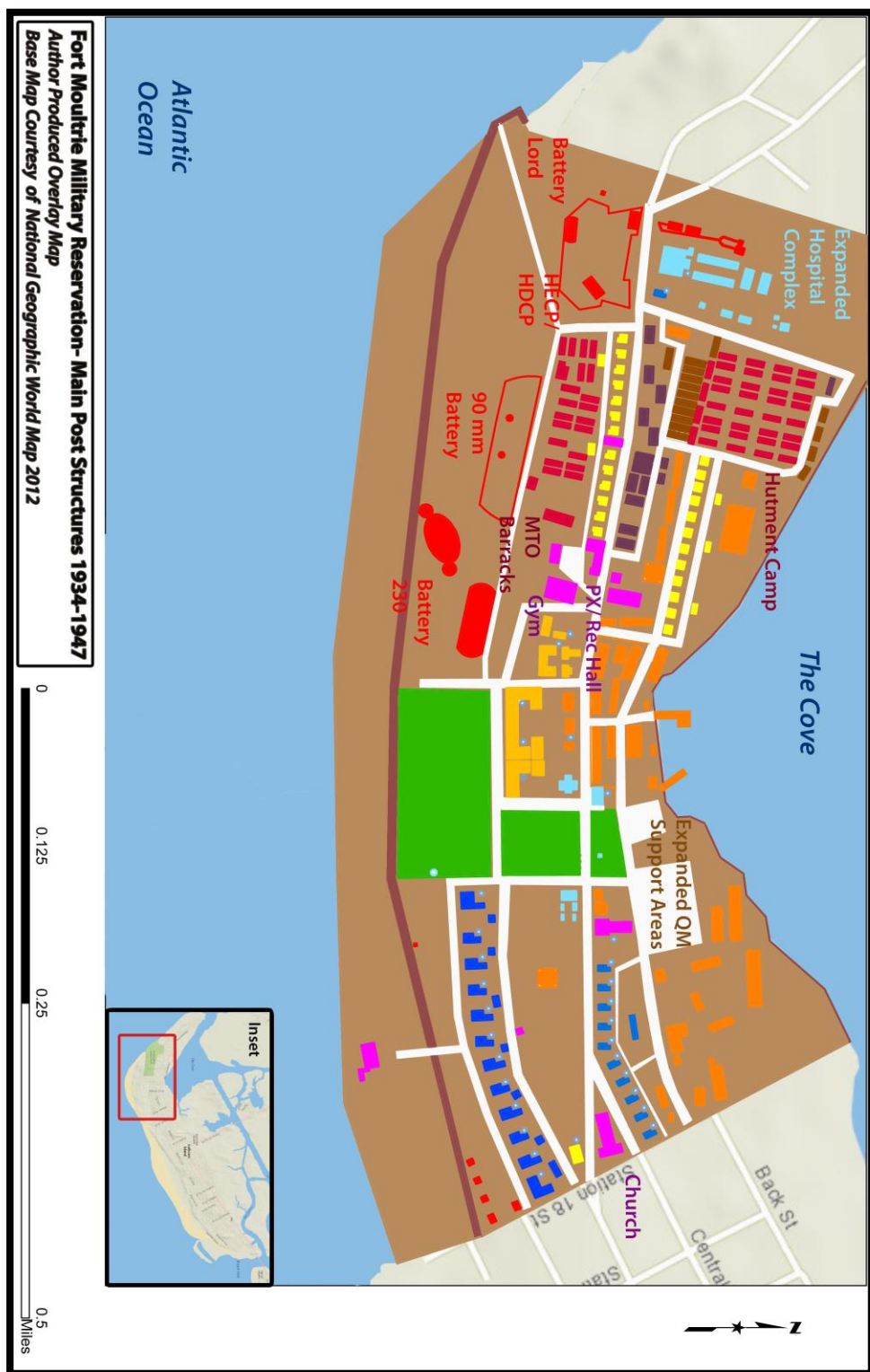


Figure 3.143: FMMR Main Post Structures existing from 1934-1947. Source: author produced GIS/Photoshop basemap.

## CHAPTER FOUR

### EXISTING CONDITIONS

#### Evolution of a Military Landscape over the Past Sixty-Five Years:

After World War II, an uncertain future faced the U.S. Army's coastal defense installations that had dominated the daily life of Sullivan's Island, as well as other coastal communities for the last fifty years. The various reuse decisions that would determine the future of these complex landscapes were especially difficult. They had operated like small military cities, managing all aspects of civic life, including utilities, transportation, and public health. If the U.S. military did not repurpose these fortifications, then their new civilian owners would inherit all of these municipal responsibilities. The difficulty in determining an appropriate civilian reuse for most of these decommissioned fortifications, resulted in a period of neglect and abandonment, until a community consensus could be achieved. The 1950 local government's decision to assimilate FMMR's military landscape into Sullivan's Island surrounding residential community would heavily influence the island's development over the next sixty-five years.

Even before FMMR's official deactivation ceremony in August 1947, numerous approaches were discussed concerning conversion of Charleston's expansive coastal fortifications to new uses. When the War Department's forthcoming decision to close FMMR was leaked in 1946, both the local and national press expressed concerns for the preservation of the nationally significant Eighteenth and Nineteenth century historic sites of Forts Sumter and Moultrie. As the 100<sup>th</sup> anniversary of the Civil War was quickly



approaching, the importance of preserving Fort Sumter, returned it into the national public's memory and galvanized support for this important site. As a result, Fort Sumter was established in 1947 as the Charleston area's first National Park Service site, overshadowing the historic importance of Fort Moultrie and its twentieth century U.S. Army reservation. Now less important, there were only limited local discussions about retaining parts of Fort Moultrie as a historic park. Because of limited interest from outside developers, and the need to create an economic stimulus, the Sullivan's Island township commissioners began plans to purchase the Army installation. They wanted to create a tourist resort similar to Charleston's other coastal communities like Isle of Palms and Folly Island.<sup>179</sup>



**Figure 4.1: 1949 United States Geological Survey Aerial Photograph of FMMR's main post showing the retaining of the installation's layout and structures while the War Asset Administration attempted to find a new owner and reuse for the site. Courtesy of the USGS Photograph Flat Files, Special Collections, College of Charleston Library, Charleston, SC scanned in Fall, 2012.**

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<sup>179</sup> "Herald Tribune Has Article on Two Local Forts" *Charleston Evening Post*, December 9, 1946; "Fort Moultrie Evacuation Begins Today" *Charleston Evening Post*, May 2, 1947.

In 1947, FMMR had been initially received from the U.S. Army by the War Assets Administration (WAA), which had been established after the conclusion of the Second World War to dispose of surplus military property. With the government's sizeable stockpiles of materials and properties along with its expanding need for an entity that could manage properties and provide logistical support for all federal agencies, the limited WAA was converted into the more powerful General Services Administration (GSA) in 1949.<sup>180</sup> This transition period, along with on-going local negotiations, resulted in a three-year period where the majority of the base remained vacant as seen in Figure 4.1. The sale of individual lots on the Marshall Reservation to civilians wanting to construct residences and the reuse of specific use buildings like the military's two churches to new congregations went quickly. While the remaining property transactions were very lengthy.<sup>181</sup>

Finally in 1950, an agreement was reached that gave all of the GSA's remaining lands to the State of South Carolina, who then deeded it to the Sullivan's Island Township Commissioners. They were responsible for dividing land into individual residential lots to be sold for funds necessary to establish the island's expanding government and civic requirements like integrating the military's pre-existing transportation and utilities networks into the remainder of the island's infrastructure.<sup>182</sup> Additionally, the island's residents determined that they wanted to maintain the island's residential beach cottage character, preventing the township commissioners' original idea

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<sup>180</sup> *Records of the War Assets Administration (WAA)*, National Archives of the United States (Compiled by Robert B. Matchette et al. Washington, DC: National Archives and Records Administration, 1995)

<sup>181</sup> "Fort Moultrie Evacuation Begins Today" *Charleston Evening Post*, May 2, 1947.

<sup>182</sup> Town of Sullivan Island. "Historical Summary" *Sullivan Island Historical and Architectural Inventory*, 1987. 6.

of developing FMMR into a larger beach resort. The ability of people living on Sullivan's Island to commute to jobs in the Charleston area with the 1945 construction of the Ben Sawyer Bridge, along with the long established tradition of individual family-owned beach cottages, forced the island leaders to promote an independent residential community. Additionally, the profits made from the sale of the new sub-divided lots, could be used immediately to complete needed infrastructure and civic projects. The beach resort concept would have required significant initial investments and a delay returns for those projects. Now as a result of the town's decision, individual purchasers of military lots would determine if they would reuse existing FMMR features or if they would demolish them for new residences.<sup>183</sup> This decision to subdivide FMMR and to establish a residential focus for the island's future, instead of developing it as a resort area, would factor in all future twentieth century development issues.

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<sup>183</sup> Charles Spencer. "Do you know your Charleston? Sullivan Island is Historic Site and One of the Nation's Oldest Resorts" *Charleston News and Courier*, May 14, 1953.



**Figure 4.2: August 1958 photograph taken from the HECF/HDCP looking towards the cove area where the site of the FMMR Hospital complex now sits vacant after being demolished. Courtesy of the Fort Sumter NPS Archives.**

During the 1950s, the conversion of the Sullivan's Island military landscape into small acreage lots resulted in the immediate alteration of both FMMR's recognizable enduring and less permanent features. First, the island's residential zoning decisions resulted in difficulties in retaining large original Endicott-period buildings that could not translate into the township's new, smaller housing lots. As a result, some of the island's largest buildings like the four Endicott era permanent barracks buildings and the Post's entire hospital complex were destroyed to clear these lands to be better subdivided. Secondly, while the existing FMMR transportation network was utilized as the basis for how the township commissioners created their new lots, the island's new lot layout

exploited underutilized areas of FMMR by adding new streets and filling in the installation's open parade grounds and accrued beach areas with new residential parcels. Finally, a significant alteration to FMMR's landscape during this period was the removal of all temporary mobilization structures that had been constructed of easily salvageable materials. These non-permanent buildings were simply demolished or moved to new locations across the island by their new civilian owners as is seen in the vacancy of the CCC camp surrounding Battery Gadsden shown in Figure 4.3.<sup>184</sup> The radical alterations of FMMR's military landscape during the 1950s initial redevelopment period created significant opportunities for new island residents to construct new contemporary beach cottages interspersed among FMMR's remaining permanent structures and monumental fortifications.

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<sup>184</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park; Historic Photographs: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

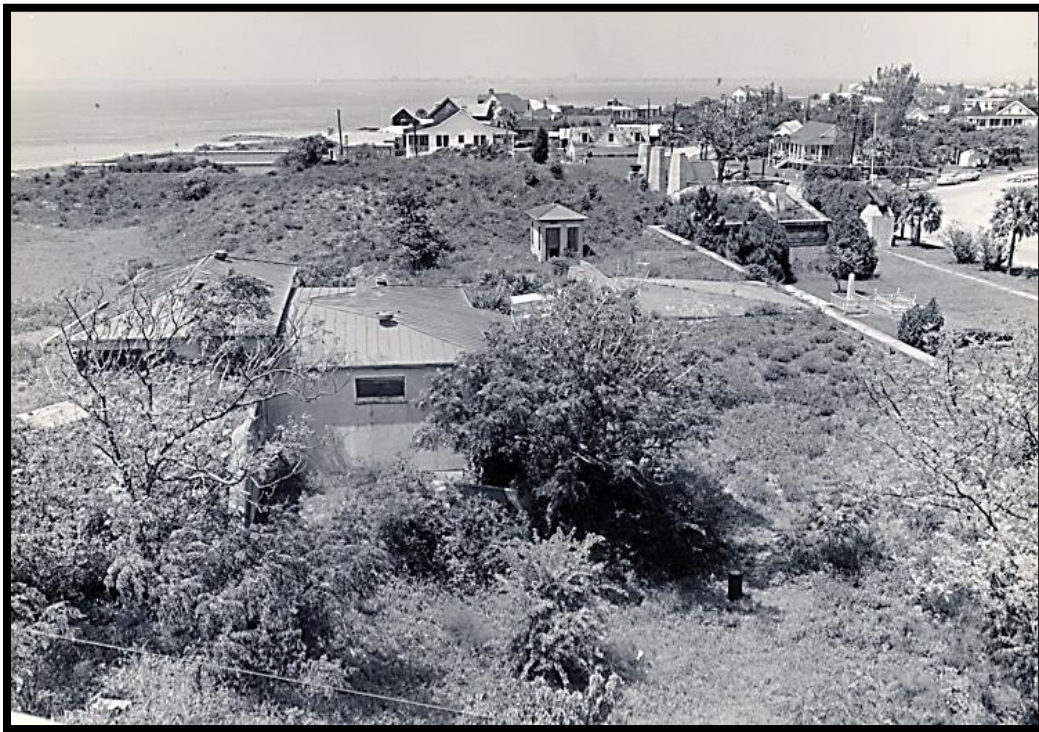




**Figure 4.3: 1949 United States Geological Survey Aerial Photograph of FMMR's Batteries Gadsden and Thomson showing the removal of most of the CCC temporary camp structures that had been surrounding the site. Courtesy of the USGS Photograph Flat Files, Special Collections, College of Charleston Library, Charleston, SC scanned in Fall, 2012.**

The success of its 1950s initial redevelopment of FMMR into individual lots allowed Sullivan's Island township the opportunity to reexamine the possibility of converting Fort Moultrie into a historic park. At the same time, the National Park Service (NPS) was interested in acquiring the property as part of the Fort Sumter National Monument, in an effort to better interpret their connections with the historic events of the American Revolution and the Civil War. In April, 1960, these two efforts

came together, as the State of South Carolina donated fourteen acres to the NPS that included the old Fort Moultrie, the dunes and beach area in front of the fort, and the old parade ground area on the cove side of Middle Street where FMMR hospital had been located. This area of FMMR had become overgrown with vegetation and sections of the historic fort had been steadily decaying since it had been left vacant in 1947, as seen in Figure 4.4. The only exception to site's general neglect was around the Second World War construction of the HECP/HDCP which was still occupied by the U.S. Navy as a calibration and testing site for its electrical communication equipment.<sup>185</sup>



**Figure 4.4: August 1958 Photograph of the interior view of Fort Moultrie taken from the HECP/HDCP looking east towards Moultrieville. The image shows the center of the historic fort overgrown with vegetation and numerous military structures in various levels of decay. Courtesy of the Fort Sumter NPS Archives.**

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<sup>185</sup> E.M. Seabrook, Jr. "Plat of Fort Moultrie being deed to the United States Government for a National Park, April 1960" *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park*; Coyte W. White. "Do you know your Charleston? Historic Fort Has Served Country Since Revolution" *Charleston News and Courier*, 1960.

Fort Moultrie's deteriorating conditions resulted in a three-year NPS cleanup campaign immediately after they acquired the property, very similar to NPS' efforts to open up Fort Sumter to visitors in the 1950s. The \$500,000 project resulted in the general removal of vegetation and unstable twentieth century structures to provide safe walking paths for individuals touring the site. Additionally, the Park Service excavated and cleaned out some of its nineteenth-century underground magazines for exhibit and office space, which also uncovered numerous military artifacts like five Civil War era cannons. These rare cannons were mounted on top of the cleared ramparts and were key exhibits when the NPS opened the site to visitors in April, 1963. During the middle of the 1960s, Fort Moultrie was a popular Charleston area tourist site, receiving more annual visitors than Fort Sumter, and bringing additional publicity to the availability of FMMR's vacant residential lots.<sup>186</sup>

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<sup>186</sup> Stewart King. "The Rebirth of Fort Moultrie" *The Charleston New and Courier. Sunday Magazine Section*, April 28, 1963; Gordon Payne. "Four Big Cannon Lifted into Place at Ft. Moultrie" *Charleston Evening Post*, April 3, 1964. John Steele, Robert Rhett & James Rhett. *Charleston Then and Now* (Charleston, S.C: Sandlapper Publishing, 1996) 116.





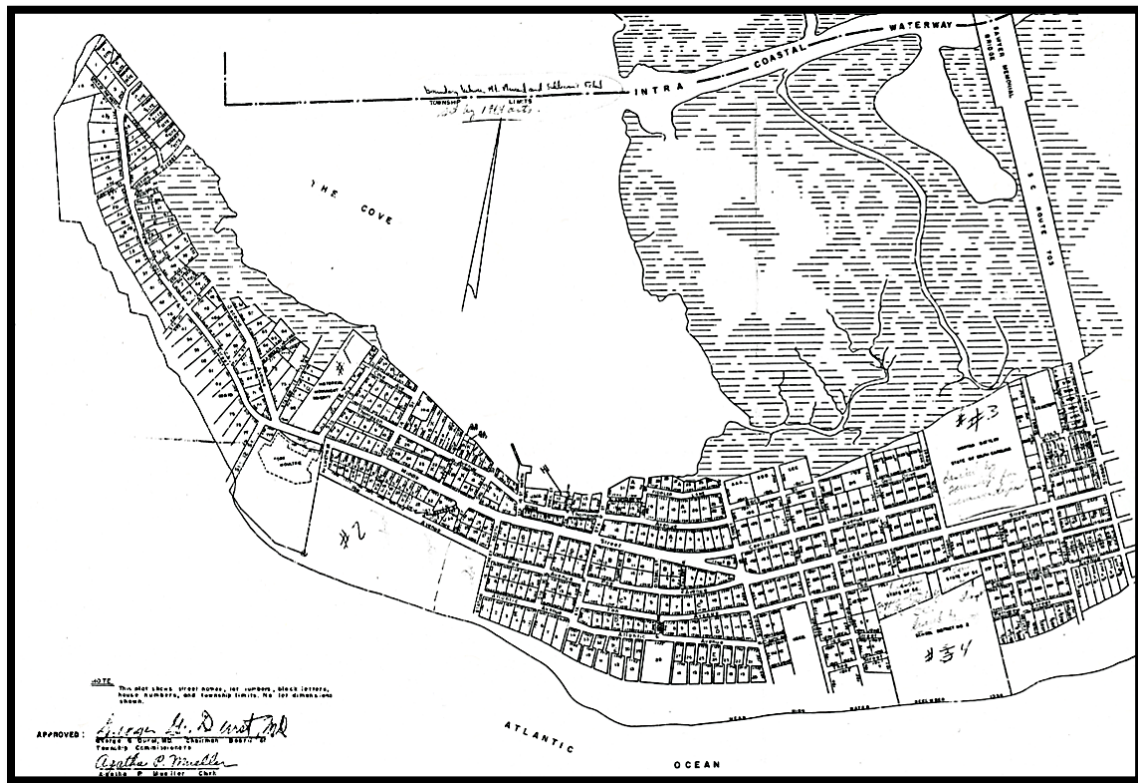
**Figure 4.5: 1964 Aerial Photograph of Fort Moultrie after the NPS restoration work to reopen the site to visitors. The image shows the removal of overgrown vegetation, demolition of some structures and the placement of five excavated cannons along the fort’s exterior walls. Courtesy of the Fort Sumter NPS Archives.**

The continued successful redevelopment of FMMR landscape was an integral part in the emergence of Sullivan’s Island as a residential community with pride in its historic past. In 1964, the township redesignated all of the island’s street names that had been altered indiscriminately over the years to now highlight various important periods in the island past. The streets that cross the short distance of the island from the cove to the ocean beach were named for their early twentieth century Charleston Seashore Electric Trolley’s stop numbers while some of the streets that ran the longer length of the island were renamed after important military figures in the island history like Jasper, Poe, and Marshall.<sup>187</sup> Another example of how Sullivan’s Island residents honored their history

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<sup>187</sup> Town of Sullivan Island. “Historical Summary” *Sullivan Island Historical and Architectural Inventory*, 1987. 4.

was the retention of a majority of FMMR's permanent garrison housing that had been constructed in the first decades of the twentieth century. By the beginning of the 1960s, all of the former officer quarters along I'On Street, all of the senior non-commissioned officer quarters along Middle Street and Central Avenue and most of the cove area junior non-commissioned officer quarters had been retained and converted into civilian residences with few alterations. Figure 4.6 shows how the island's development retained the military layout of FMMR housing while new expansion streets like Atlantic Avenue mirrored the existing military circulation pattern to create an organized grid pattern.<sup>188</sup>



**Figure 4.6: May 1964 Plat Map showing all town lots on the western side of Sullivan' Island. Image shows additional town lots and streets expanding across FMMR's landscape while all of the Endicott batteries outside Fort Moultrie were still under the control of the State of South Carolina. Additionally, the CCC camp area in front of Battery Gadsden/Thompson had been used in the 1950s construction of the Sullivan's Island Elementary School. Courtesy of the Fort Sumter NPS Archives.**

<sup>188</sup> *Historic Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

Furthermore, during this period Sullivan's Island residents' resourcefulness in adapting various military structures into residential uses was highlighted in the press and was well-respected by the community. The most famous adaptive renovation was the conversion of the Marshall Reservation's Battery 520. The large hill with the two massive underground, concrete-casemated, 12-inch gun positions and connecting magazine bunkers was converted into three separate residences shortly following FMMR's decommissioning. Similarly, the battery's smaller separate hill with raised sighting structure was converted into another residence with an elevated elliptical concrete driveway that reached its new front door.<sup>189</sup> While these permanent World War II fortifications were the only structures preserved on the Marshall Reservation - as the 1940 Overseas Replacement and Service Depot had been constructed of temporary structures - the military's transportation network on this end of the island was assimilated with the extension of I'On, Middle, and Marshall Streets north of Station 28 1/2 until they intersect with Jasper Avenue as seen in Figure 4.7. Another unique example of 1950s adaptive reuse was the conversion of FMMR's 400 square foot bandstand into a single-room, weekend beach cottage. Moved to the northern cove end of Station 15 in the vicinity of FMMR's old NCO garages, the bandstand was enclosed with clapboard siding and with limited interior additions became a Charleston businesswoman's comfortable

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<sup>189</sup> Jamie Thomas. "Home Is Where The Big Guns Were..." *Charleston News and Courier, The Evening Post*, July 26, 1981; Paul Trescott. "Architectural Variety: Sullivan Island Is A Treasure" *Charleston Evening Post*, June 16, 1967.

weekend getaway spot.<sup>190</sup> The creativity of the Sullivan's Island residents throughout this initial redevelopment period, established this distinctive island tradition of incorporating these military redesigns into its new residential character and inspiring future adaptive reuse projects throughout the community.



**Figure 4.7: 1963 United States Geological Survey Aerial Photograph of the Marshall Reservation showing the adaptive reuse of Battery 520 and the military's road network that ended at the site of the now vacant 1940 Overseas Discharge and Replacement Depot on the island's northern end. Image also shows the beginning of new residential construction as individuals purchased lots from the township commissioners over the past fifteen years since FMMR closing. Courtesy of the USGS Photograph Flat Files, Special Collections, College of Charleston Library, Charleston, SC scanned in Fall, 2012.**

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<sup>190</sup> "Fort Moultrie Bandstand Now Being Used As House" *Charleston News and Courier*, August 11, 1968. Paul Trescott. "Architectural Variety: Sullivan Island Is A Treasure," *Charleston Evening Post*, June 16, 1967.

After the NPS's initial success in restoring and opening of Fort Moultrie during the early 1960s, the NPS leadership along with the township commissioners wanted to expand Sullivan's Island's historic park by including Battery Jasper and Battery 230 to continue educating the public about the island's coastal defense fortifications from the 1770s through the 1940s. On June 1, 1967, the State of South Carolina expanded the Fort Sumter National Monument by giving another fourteen and half acres of property that included both of these fortifications and all lands in front of them along the beach. The acquisition allowed the NPS to open one gun position in Battery Jasper to inform the public about the island's Endicott history around the Spanish American War and how the batteries were converted for use in the World Wars. Additionally, the Park Service started using Battery 230's underground bunker as a maintenance and storage area. In 1971, the Navy constructed a modern, two-story brick building on top of the bunker to move their electronics testing facility out of the HECF/HDCP.<sup>191</sup> The 1967 doubling of size of NPS's Fort Moultrie historic site signaled the end of the initial twenty year redevelopment period and ushered in a new phase of national and state legislation that changed the ways Sullivan's Island recognized its cultural resources and governed itself.

First, the 1966 enactment of the National Historic Preservation Act (NHPA), created State Historic Preservation Offices (SHPOs). One of their main missions was assisting local governments with the recognition of their historic sites. Created as part of NHPA, the National Register of Historic Places was administered by the National Park Service and provided the SHPO a procedure to recognize sites across their states based on

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<sup>191</sup> Stewart King. "Fort Moultrie Reservation Expanded by 14.5 Acres" *Charleston News and Courier*. June 2, 1967.

varying levels of historic significance.<sup>192</sup> In the early 1970s, the South Carolina SHPO began surveying historic resources on Sullivan's Island to initiate the process of nominating numerous island resources to the National Register. Sullivan's Island first nomination was completed in 1973 with the listing of the island's Coast Guard Lifesaving Station. This listing included most of its contributing resources for their social and humanitarian significance but also, its Endicott era bunker as a contributing military resource that was later turned into one of FMMR's secondary base end stations. A year later, the SHPO completed Battery Thomson and Battery Gadsden's individual nominations, recognizing their military and engineering significance to Charleston's coastal defenses, while also providing the first national recognition for the island's other military fortifications in the vicinity of Atlanticville.<sup>193</sup> Finally, two years later in 1976, the Fort Sumter National Monument completed its own National Register nomination for Fort Sumter, Fort Moultrie, the remaining Endicott batteries of Jasper, McCorkle, and Bingham along with additional contributing resources of Battery 230, FMMR's torpedo storehouse, and the HECP/HDCP complex.<sup>194</sup> Overall, these combined National Register nominations in the 1970s provided the first long-term national recognition and limited protections to key areas of FMMR's military landscape and continued to strengthen the community's pride in their acknowledged history.

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<sup>192</sup> National Historic Preservation Act of 1966, Public Law 89-665, U.S.C. 470 (1966).

<sup>193</sup> Elisa B. Bull. *National Register of Historic Places Registration Form Battery Gadsden* (Washington D.C., National Park Service, 1974); Elisa B. Bull. *National Register of Historic Places Registration Form Battery Thomson* (Washington D.C., National Park Service, 1974)

<sup>194</sup> Benjamin G. Nelson *National Register of Historic Places Registration Form for Fort Sumter* (Washington D.C., National Park Service, 1973)

The second important change that came to Sullivan's Island during the 1970s was caused by the State Legislature passing the 1975 Local Government Act, requiring local municipalities to provide required civic services or face possible incorporation into nearby towns. The passing of the law required Sullivan's Island to decide if they were going to incorporate into a municipality by converting its small township style of government to a more robust council form of local government or if they would be annexed into one of the surrounding area's other municipalities of Mount Pleasant, Isle of Palms, or the City of Charleston. Not wanting to forfeit their rights and already possessing an independent character stemming from the island's past, Sullivan's Island residents decided to apply and received approval from the State Legislature to incorporate as a town in 1975. This change in the size and scope of Sullivan's Island local government mandated new additional controls and services - supervised by the combined elected members of a town council and a mayor- that would have a long-term impact on how the island would manage growth and protect its historic resources.<sup>195</sup>

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<sup>195</sup> Wannamaker, *Long Island South* 217; Charlie B. Tyer. *Municipal Governments in the Palmetto State* (Columbia, S.C: University of South Carolina, Institute of Public Affairs, Center for Governance, 1998); Lee. *A Tour of Historic Sullivan's Island* 21; Town of Sullivan Island Website. *Government* Accessed in November 2012. <http://www.sullivanisland-sc.com/government.aspx>





**Figure 4.8: 1973(left) and 1979(right) United States Geological Survey Aerial Photographs of the western end of the FMMR showing the NPS development of Ft. Moultrie and its visitor area. Images also show the increasing amount of town lots with new homes being built along with the growth of vegetation especially in vicinity of the dunes. Courtesy of the USGS Photograph Flat Files, Special Collections, College of Charleston Library, Charleston, SC scanned in Fall, 2012.**

As Sullivan’s Island adapted to both the new preservation and governance legislation passed in the 1970s, the island had a period of rapid development with the population increasing of over thirty percent in only ten years. The 1970s brisk growth was uncommon since population on the island, which had been under 1,000 year-round residents after the FMMR closing in 1947, had remained steadily at about 5 percent increase per decade. One major reason for the jump in population growth was the remaining availability of ocean view property, as seen in Figure 4.8, which had already been occupied on most of Charleston’s other barrier islands.<sup>196</sup> Another reason for the island’s growth to eighteen hundred residents during this period was the National Park Service, who funded a massive excavation and restoration project to convert Fort

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<sup>196</sup> Town of Sullivan Island. “Population Element- Chapter 3” *Sullivan Island Comprehensive Plan*, 2008. 21-27.



Moultrie into a modern historic park that would exhibit all periods of the island's coastal defense fortifications. Completed just before the United States' bicentennial celebration of the signing of the Declaration and the anniversary of the Battle of Sullivan's Island, the park's improvements included a new contemporary brick visitor center and parking lot area that was on the site of FMMR's hospital complex as seen in Figure 4.9.<sup>197</sup>

Overall, the 1970s signaled a key period in Sullivan's Island development. Incorporation, larger civic responsibilities, and population growth, led to its historic resources becoming increasingly surrounded or replaced by new construction. It was during this decade that most of FMMR landscape elements, including its basic plan and open space configuration were lost or at least supplant by the town's development.



**Figure 4.9: 1976 Photograph of the Ft Moultrie NPS Historic Site looking east, showing the park's intensive excavation and restoration improvements for the bicentennial anniversary of the Revolutionary War's Battle of Sullivan's Island. Image also shows the continued protection that FMMR's timber seawall and stone rip-rap wall is providing to this area of the island. The 19<sup>th</sup> century stone jetty off Station 12 can be seen in the bottom left of the photograph. Courtesy of the Fort Sumter NPS Archives.**

<sup>197</sup> *Historic Photographs, Maps and Blueprint Flat Files: Ft Moultrie/Sullivan Island Fort Sumter National Park.*

In the 1980s, the Town of Sullivan's Island continued to be faced with increasing numbers of new residents that made the island their permanent year-around homes. The new local government faced many challenges to preserve the island's residential character, while also protecting its cultural resources. First, as the size of the town government grew in the 1970s with additional positions, the old Post Library that had served as the town hall since FMMR's deactivation was turned over to the volunteer fire department for their use. Instead of building new government offices with their small operating budget, the town decided to convert FMMR's Quartermaster warehouses on the corner of Middle Street and Station 16 into the new town hall.<sup>198</sup> Another challenge occurred in 1982, when the town council was approached by the South Carolina Department of Transportation about converting the Ben Sawyer swing bridge into a bigger, fixed bridge that would increase transportation capacity to both Sullivan's Island and Isle of Palms. Fearing changes to the island's residential character with the increase of tourists' traffic crossing the island to get to its resort-focused northern neighbor, the town council denied the state's transportation improvement, resulting in the decade-long building of the Isle of Palms Connector Bridge that was completed in 1993.<sup>199</sup> Lastly, around the same time as the discussions about changes to the Ben Sawyer Bridge, the Federal Emergency Management Agency required that the town government comply with federal flood control regulations by supplying a list of all buildings constructed since 1977. In an effort to reduce coastal flood damage, the federal government required all new buildings constructed since that time to have no living areas in the flood hazard

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<sup>198</sup> Lee. *A Tour of Historic Sullivan's Island* 70-71.

<sup>199</sup> Jamie Thomas. "Referendum on Bridge Denied" *Charleston News and Courier*, Dec 8, 1982.

zone, which was in reality the first level of all houses on Sullivan's Island. As a result of this protective policy, most of Sullivan's Island's new residential construction would be built on a raised foundation, making two different visible groupings of beach cottages- those built before and after 1977.<sup>200</sup> As the Town faced these challenges and an expanding non-native population that had little understanding or ties to the island's historic past, its government began searching for ways to protect the place's residential character through historic resource and zoning planning.

In the middle of the 1980s, differing views on growth and if historic resources should be protected above property owner rights caused a lot of lively civic discussions at town council meetings. One of the main topics of discussion was the 1986 town government's decision to partially fund a historic survey to identify the island's remaining significant features. After the completion of the survey, the town and its residents would decide if they were doing enough to preserve their historic resources or if they needed to provide additional protections through zoning controls or by forming a design review board. Receiving a matching grant from the South Carolina SHPO to cover half of the survey's cost, the town selected Preservation Consultants, Inc. to complete the island's architectural assessment and detailed historical research in one year's time.

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<sup>200</sup> Jamie Thomas. "Sullivan's Submits Building List" Charleston News and Courier, Dec 4, 1982; Federal Emergency Management Agency (FEMA). *A Unified National Program for Floodplain Management* (Washington, D.C: March, 1986)



**Figure 4.10: 1987 Photographs from Sullivan's Island's 1987 Historic Sites Survey of FMMR's First Post Exchange and Gymnasium Building located at 1714 Middle Street. After FMMR's decommissioning, it was converted into a private residence and in 1987 Preservation Consultants, Inc. was allowed to document its exterior and interior spaces by the owners during their existing conditions survey. Images show the reuse of the gymnasium for storage and the top of the building's cistern as a deck. Courtesy of the Town of Sullivan's Island Historic Building Records.**

The consultant's 1987 final report identified over 360 historic resources and the potential for three National Register districts that could be created. The consultant's survey fieldwork used the South Carolina's Inventory of Historic Places Survey Field Forms, thus providing three pages of descriptive architectural details, a short history and images of its current appearance for each of the 360 identified resources. The inclusion of this fieldwork was important because it provided the town government a detailed baseline of existing conditions, including the first examination of FMMR's enduring military features that had been left to civilian adaptive reuse since the installation's decommissioning. The 1987 survey identified over sixty remaining FMMR structures - most of which were the installation's housing that had been easily converted into new residential use - and the possibility of creating a National Register district to recognized FMMR landscape as a combined grouping of similar resources.<sup>201</sup>

The substantial amount of historic resources, recognized in the 1987 historic site survey, provided the town government adequate proof of the community's overall historic significance to support recommending the entire island as a historic district governed by a design review board. But, when the proposal was discussed and voted on during town council meetings throughout 1988, a majority of residents rejected the proposal out of fear that it would reduce property values and restrict property owner rights to build new structures on their properties. After acknowledging the majority objections, the town council reduced their historic district plan to three smaller districts of

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<sup>201</sup> H. Jane Shealy. "Sullivan's Island Debates Historical Survey, Review Board" *Charleston News and Courier*, December 4, 1985; Dawn Brazell. "Sullivan's Island Gets State Grant for Historical, Architectural Survey" *Charleston News and Courier*, September 26, 1986; Town of Sullivan Island. *1987 Historic Sites Survey* (Charleston, SC: Preservation Consultants, Inc., 1987.)

around three hundred homes. Any partial or total demolition of these structures in these districts would have to be approved by a town commission, but no formal design review board was established for the rest of the island. After an increase of over eight hundred additional residents from the beginning of the 1980s, the island community's decision not to enact more protective measures was not surprising since many of these new owners had constructed modern beach cottages on vacant or demolished existing structures on lots and had no desire to restrict their rights to expand their homes as needed. In addition to the permanent island residents during this period, an increasing number of these owners constructed new, or converted existing structures into, beach vacation rental homes for the important growing tourism markets. The decision to scale back the historic protections proposed in the 1987 Historic Site Survey Report did give the majority of remaining FMMR structures some protections - with one of the island's historic districts placed around a majority of the eastern side of FMMR's main post – just before the island was suddenly impacted by the worst natural disaster to ever impact its shores.<sup>202</sup>

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<sup>202</sup> Dawn Brazell. "Sullivan's Island wrestles with growth" *Charleston Evening Post*, March 30, 1986; Arlie Porter. "Sullivan's Scales Down Plans for Historic District" *Charleston Post and Courier*, Oct. 13, 1988.





**Figure 4.11: September 28, 1989 Photograph of the Hurricane Hugo damage to the Ben Sawyer Bridge. The storm's high winds displaced the alignment of the swing bridge requiring weeks of repair after the storm and closing the only road access between Sullivan's Island and Mount Pleasant during that time. Courtesy of the Fort Sumter NPS Archives.**

Hurricane Hugo, a Category 4 hurricane, with winds gusting to over 150 miles per hour came ashore on the night of September 22, 1989 causing widespread floodwater and wind damage across the entire island. The worst hurricane to hit the island disabled the Ben Sawyer Bridge, isolating the island for an extended period from the majority of residents who had evacuated before the storm hit. All public services were disrupted on the island as storm debris from destroyed and damaged homes was scattered across the island. As the island began to rebuild, the extent of damage to Sullivan's Island historic resources was unknown and the town required financial assistance through the Historic Charleston Preservation Disaster Fund to pay for a follow-up assessment to determine how many of the properties had been damaged or destroyed by the hurricane. Completed

in the first half of 1990, Preservation Consultants, Inc. evaluated all of the three hundred resources that they had identified as part of the three historic districts recommended for the island in the 1987 survey. For each site, a storm damage assessment was completed by a field surveying team touring the island nearly three months after the storm. This assessment also incorporated information from owner's questionnaires that described what storm damage had already been fixed.<sup>203</sup>



**Figure 4.12: 1990 Photograph of the rear of 1722 Middle Street, one of FMMR's Senior NCO Quarters taken for the 1990 Hurricane Hugo Historic Sites Damage Assessment Survey. Image shows the typical damage caused to FMMR structures with damaged roofs, destroyed windows, missing siding, and collapsed porches. Courtesy of the Town of Sullivan's Island Historic Building Records.**

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<sup>203</sup> Sarah Fick & John Laurens. *The Impact of Hurricane Hugo on Historic Resources, Charleston County, South Carolina: A Report to the Historic Charleston Preservation Disaster Fund* (Charleston, SC: Preservation Consultants, Inc. May 31, 1990) 1-13.



Overall, seventy-two sites from the over three hundred resources examined were part of FMMR's military landscape; most of these were nearly a century old at the time of the storm and weathered its impacts better than their more modern neighbors. Only two of the surveyed FMMR's resources were so damaged by Hurricane Hugo that they had to be destroyed, a small number when compared to the island's other ninety structures demolished because of storm damage. While most of FMMR's remaining resources did receive varying levels of damage from the storm, the community's recognized their significance for the greater island community and most of their owners promptly repaired their historic structures to their original appearances over the next few years. Overall, Sullivan's Island suffered Hurricane Hugo's sudden destruction of more than thirteen percent of its historic resources, resulting in the public's reawaking to the importance of protecting the island's remaining history before it too was lost to other environmental disasters or human development in the near future.<sup>204</sup>

As the community steadily rebuilt in the early 1990s, the Town's remaining Endicott batteries were increasingly overgrown, experiencing material failures and covered in graffiti, becoming a public danger instead of a respected piece of the island's history. In an effort to correct this safety issue while also developing new uses for these vacant fortifications, the Town hired Richard Marks Restorations and Glenn Keyes Architects in 1992 to develop a future planning and development assessment product for Batteries Logan, Thomson, Gadsden, and Capron Butler. This six-month study was the first time that most of these structures had been examined since the Army's

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<sup>204</sup> Ibid; Sarah Fick & John Laurens. *Hurricane Hugo Historic Site Survey Individual Property Forms*. (Charleston, SC: Preservation Consultants, Inc. 1990) Stored at Historic Charleston Foundation Archives.

decommissioning and provided the first professional examination that merged the fortification's history along with considerations for its current sense of place on the island to determine appropriate future adaptive reuse recommendations. The Town of Sullivan Island enacted three of the consultant's recommendations in the years following the completion of the report. Battery Thomson was converted into the town's firefighting training center; Battery Gadsden continued to be developed as the island's cultural area with its three bunkers continuing to hold a branch of the Charleston County Library System along with a new public cultural center and public garden club space; and the empty deep pits of the Capron Butler Mortar Battery was filled in to become a green elevated space adjacent to the town park in the center of the island.<sup>205</sup> The conversion of these aging military resources into new adaptive reuse facilities - providing community enhancements while also preserving and securing them from further vandalism and neglect - was one of the first efforts by the Town to refocus its approach of protecting its cultural resources.

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<sup>205</sup> Richard Marks Restorations & Glenn Keyes Architects. *Sullivan's Island Fortifications: Assessment of Endicott Batteries Logan, Thomson, Gadsden, Capron, and Pierce Butler* (Charleston, SC: Report for the Town of Sullivan's Island, 1992); Thurston Hatcher. "Securing the Batteries," *Charleston Post and Courier*, March 12, 1992.



**Figure 4.13: Two Aerial Photographs (the top from 1994 and the bottom from 2002) of the center of Sullivan's Island illustrating the development of FMMR's Main Post and the Batteries Gadsden/Thomson/ and Pierce Butler areas in Atlanticville. Image shows the rapid rebuilding and additional residential fill growth throughout FMMR's areas along with the expansion of vegetation in this area of the island. Courtesy of Google Earth Historical Aerial Files from 2012.**

As Sullivan's Island began to usher in a new period of growth in the years following Hurricane Hugo's destruction as seen in Figure 4.13 and 4.14, the South Carolina State Government began pressuring all of its municipalities to establish and revise local land-use regulations through the periodic review of a comprehensive plan. The passing of the 1994 Local Government Planning Enabling Act forced the Town of Sullivan to complete a ten-year comprehensive plan that examined all of the community factors affecting its existing conditions, define needs and goals for the next ten years, and to implement strategies to achieve them. Over the next four years, with the hard work of the town council, government staff and local residents' input, the 1998 Sullivan's Island Comprehensive Plan was published. One of the core elements required in this planning document was a discussion about the island's cultural resources and what the island's future needs and goals would be. Stating that the island's historic resources "are a very important part of the fabric of the community," the island's 1998 cultural resources goals focused on providing protections to sites that help to define the town's sense of place, especially the island's distinctive set of Endicott batteries.<sup>206</sup> In order to accomplish these goals, the town encouraged additional designation of these important sites and an investigation of further local government regulations that could help to preserve them. The citizens' general approval of the island's first comprehensive plan in 1998 signaled a change in the public's feelings toward supporting more regulatory control over historic property owners rights to protect the island's cherished past.<sup>207</sup>

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<sup>206</sup> Town of Sullivan's Island. "Chapter 2: Needs and Goals: Cultural Resources" *Sullivan Island Comprehensive Plan*, 1998. 5.

<sup>207</sup> Ibid. Town of Sullivan's Island. "Chapter 5: Cultural Resources: Existing Conditions" *Sullivan Island Comprehensive Plan*, 1998. 18-24.





**Figure 4.14: Two Aerial Photographs (the left from 1994 and the right from 2002) of Marshall Reservation northern end of Sullivan's Island shows the rebuilding of this section of the island after Hurricane Hugo extensive damage. Image also shows the retention of Battery 520s underground structures as residential homes that stood apart from their more modern neighbors. Courtesy of Google Earth Historical Aerial Files from 2012.**

In 2002, the Town of Sullivan's Island hired Cooper Consulting to conduct the state government's required five-year review of the island's ten-year comprehensive plans and provide an assessment on the status of the plan's original goals. To assist with the review of the plan's cultural resource section, David Schneider of Schneider Historic Preservation, LLC was added to the project to create a historic preservation plan for the island. An original member of the team that conducted the Sullivan's Island 1987 Historic Site Survey, Mr. Schneider executed a windshield survey of all of the 1987 resource locations and completed an updated survey sheet with digital photographs to record their current existing conditions. Comparing the two surveys, he found that almost one third of the 1987 resources had been either demolished or altered by modern construction in the fifteen-year span between surveys. Additionally, he identified another forty-one resources that needed to be added to the island's historic resource list that were previously overlooked. The comparison of the two surveys showed little change in

FMMR historic landscape except that a majority of the junior non-commissioned officer quarters located along Middle Street and Cove area had been demolished post-Hugo due to their small living spaces and the desire of new residents to build larger modern beach cottages. Overall, Mr. Schneider's survey findings, illustrated in Figure 4.15, provided the evidence that unless the Town of Sullivan's Island acted soon to protect its historic resources, it was possible that in the near future, the island could lose a majority of its resources due to uncontrolled growth.<sup>208</sup>

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<sup>208</sup> David Schneider. *2003 Sullivan's Island Historic Site Survey Update and Preservation Plan*. (Charleston, SC: Schneider Historic Preservation, LLC, 2003); Michael Gartland. "Meeting Focuses on Future of Sullivan's Island" *Charleston Post and Courier*, February 6, 2003.

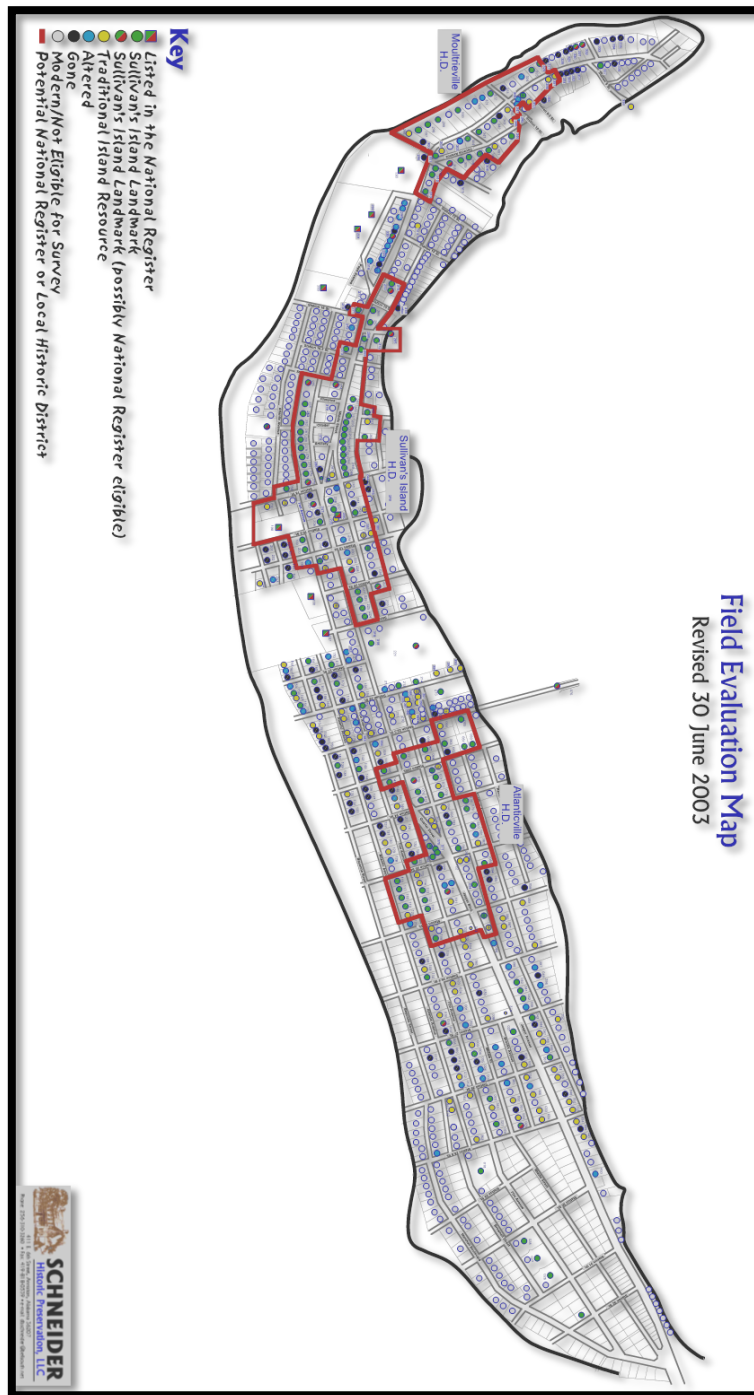


Figure 4.15: 2003 Historic Resources of Sullivan's Island Map completed by Schneider Historic Preservation, Inc. The red line areas show the island's three potential historic districts, which contain a majority of the island landmarks that could be included on the National Register. The majority of FMMR main post is included in the Sullivan's Island's Historic District while all the batteries sites are listed on the National Register or eligible for it as a Sullivan's Island's Landmark. Courtesy of the Town of Sullivan's Island.

Awakening to the urgent threat facing the island's historic resources, the town government enacted a number of different measures over the next few years to protect them from further loss. First and most importantly in 2005, the Town of Sullivan's Island adopted a design review board that was responsible for providing oversight of any proposed changes to properties included in the island's historic preservation overlay districts. These three local designated areas had been redrawn in the 2003 historic preservation plan, but still included FMMR fortifications and some of the FMMR structures located in the old post area between Station 12 and 18. The creation of a design review board provided the first local protections for the remaining FMMR structures that had been respected enough by the island's public over the past sixty years not to be destroyed for new growth.<sup>209</sup>

In 2005, the town government conducted a second measure to further recognize these historic areas when they hired Schneider Historic Preservation, LLC to complete National Register nominations for the island's local preservation overlay districts. Completing the lengthy nomination process in 2007, the Town was recognized with a total of four new National Register Districts.<sup>210</sup> The addition of another district from the locally designated three was caused by the splitting of Sullivan's Island Historic District into two parts, both of which include FMMR's resources. First, the western half of the

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<sup>209</sup> Town of Sullivan's Island. *Design Review Board, Zoning Ordinance, Chapter 21 of Town Ordinances* May 17, 2005. 53-58; Robert Behre. "Saving Historic Sullivan's Island from its own Popularity" *Charleston News and Courier*, September 13, 2004; David Schnieder. "Summary of Identification and Evaluation Methods" *National Register of Historic Places Multiple Property Documentation Form for Historic Resources of Sullivan's Island, South Carolina* (Schneider Historic Preservation, LLC, January 1, 2007)

<sup>210</sup> Schneider, David S. *National Register of Historic Places Registration Forms for Moultrieville Historic District, Atlanticville Historic District, Sullivan's Island Historic District, and Fort Moultrie Quartermaster and Support Historic District* (Washington D.C: National Park Service, 2007.)



original district was named the Fort Moultrie Quartermaster and Support Historic District and included the remaining FMMR support structures located around Station 15 and 16, including the area of the Post Theater, library, warehouses, commissary and quartermaster docks.<sup>211</sup> The eastern half of the original district retained the name of Sullivan's Island Historic District and included the FMMR Headquarters Building, senior officer quarters, senior NCO quarters, and its World War II church along with neighboring civilian structures as key contributing resources.<sup>212</sup> Finally, close to sixty years after FMMR's decommissioning, the historic significance of FMMR's structures were recognized at the same level that the island's remaining Endicott fortifications had received when they were added to the National Register almost thirty years prior. The town's decisions - to enact a design review board, creating three historic local overlay districts, and funding the work required to get four areas of the island listed as districts on the National Register of Historic Places - proved how important these historic resources were to the fabric that made Sullivan's Island distinct.

The past 65 years of civilian redevelopment of FMMR's military landscape was a gradual progression that helped to develop a strong local government and a public that respects their island's visible historic features. While significant portions of the military installation were subdivided into civilian residential lots early in this period, FMMR's general layout was retained with the continued use of the military's road and utilities network and the conversion of permanent military residential structures. By using

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<sup>211</sup> Schneider, David S. *National Register of Historic Places Registration Forms for Fort Moultrie Quartermaster and Support Facilities Historic District* (Washington D.C: National Park Service, 2007)

<sup>212</sup> Schneider, David S. *National Register of Historic Places Registration Forms for Historic Resources of Sullivan Island* (Washington D.C: National Park Service, 2007)

FMMR's military landscape as a template for development over this period, it also helped to integrate new construction within the existing historic patterns and foster residents' pride for their island's cultural resources.

Due to this desire to preserve its remaining historic features as a tangible element, it has been considered in recent planning decisions by the Town. Recently, the town's pride has expanded beyond protecting historic buildings with the public's decision to replace the aging Ben Sawyer's old-style swing bridge with a new matching replacement. The island residents' recognized its design was a historic symbol connecting the island to the outside world for the past sixty years.<sup>213</sup> Additionally in 2012, the State of South Carolina decided to sell the FMMR's old Quartermaster Dock to a developer whose residential redesign is historically sensitive to the structure's military past.<sup>214</sup> If both of these projects had occurred before the twenty-first century's change in public opinion and the island's government protection guarantees, they might have been lost in the name of modern growth. An example of missed opportunity occurred within the past year, as the Town of Sullivan's Island underwent a planning study to determine the location for a replacement town hall complex. Two of the three options considered by the Town's study included the interior remodeling of two different FMMR structures as the town's new governmental offices. But in the end, the town's leadership and public input decided that both conversions would cost too much and not provide the civic space requirements,

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<sup>213</sup> Prentiss Findley. "Ben Sawyer Bridge to Have a Facelift" *Charleston Post and Courier*, February 15, 2009; Prentiss Findley. "Ben Sawyer Bridge to close during work" *Charleston Post and Courier*, January 3, 2008; Prentiss Findley. "Waterway open today" *Charleston Post and Courier*, February 16, 2010.

<sup>214</sup> Bo Petersen. "Pier Pressure: Resident lobbies for repairs of state-owned property" *Charleston Post and Courier*, August 3, 2010; "Sullivan's Quartermaster Property sold to island resident" *The Island Eye News*, March 22, 2012.

resulting in their decision to construct the new town hall structure adjacent to the island's civic park. Over the past 65 years, the leaders of Sullivan's Island have had to balance both sides of its development; from some residents' desires for new modern development to other citizens' pleas to protect the island's historical features. These two sides of island's civic discussion have been key in dividing FMMR's extant historic cultural resources into two separate groups- those that have been recognized and preserved for their historic importance, and others that have been left unrecognized.

#### FMMR's 2013 Existing Significant Features:

The Town of Sullivan's Island's decision to sub-divide the majority of FMMR property into individual residential lots helped to create these two groups of features. Throughout the last half of the twentieth century, these individual property owners decided what they would keep and what would be demolished. As a result, the 1987 and 2003 historic site surveys focused on identifying remaining historic structures that had been converted into new uses and that could be recognized as individual features instead of as a part of the larger military reservation. While these surveys were crucial to understanding how FMMR's remaining batteries and buildings had developed over the past sixty-five years, their individual concentration failed to recognize many different overlooked landscape features from the island's recent military history.

This thesis will briefly recognize these previously surveyed structures, but will focus on identifying the integrity of the military landscape as a whole. A ground survey was conducted over three days by using visual observations and photographs taken from

public right of ways to document the existing conditions of FMMR's remaining resources. This survey information was combined with current Town of Sullivan's Island planning information and historic preservation protections to provide an understanding of each of these feature's current use, status of original material composition, and how it is being recognized or safeguarded. By examining these existing conditions and their connections to FMMR's past landscape elements, an evaluation of its overall significance and remaining integrity will determine if they still possesses the sense of place of a twentieth century military installation.

#### Existing Military Mission Features

Prominent reminders of the twentieth century's military's presence on Sullivan's Island are FMMR's Endicott batteries and Second World War casemated batteries. After the past sixty-five years of civilian development, eighteen of these remaining military resources can be divided into three different groups. The decisions of the National Park Service, the Town government, and private owners have produced the current conditions of these historic resources due to varying levels of adaptive reuse and maintenance. Overall, the permanent construction methods and the rarity of these structures have resulted in new uses that reflect both national and local importance. At the same time, the difficulty of maintaining these massive military fortifications have resulted in the general deterioration of these resources, as most of them are over one hundred years old.

Figure 4.16: 2013 FMMR Historic Landscape Survey: Military Mission Features

Resource Name	Periods of Significance	Owner	Current use	Current Condition	Protections
Fort Moultrie #3	1 <sup>st</sup> - 4 <sup>th</sup> Periods 1895-1947	NPS	Historic Park	Good, Historically Maintained	Listed on the National Register
Battery McCorkle	1 <sup>st</sup> , 2 <sup>nd</sup> Periods 1901-1920	NPS	Historic Park	Good, Historically Maintained	Listed on the National Register
Battery Bingham	1 <sup>st</sup> , 2 <sup>nd</sup> Periods 1899-1919	NPS	Historic Park	Good, Historically Maintained	Listed on the National Register
Battery Jasper	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1898-1942	NPS	Historic Park	Good, Historically Maintained	Listed on the National Register
HECP/HDCP	4 <sup>th</sup> Period 1944-1947	NPS	Historic Park	Good, Historically Maintained	Listed on the National Register
Battery 230	4 <sup>th</sup> Period 1942-1947	NPS	Maintenance/ Storage	Good, Historically Maintained	Listed on the National Register
Mine Torpedo Shed	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	NPS	Park Headquarters Building	Good, Historically Maintained	Listed on the National Register
Battery Jasper's Powerhouse & Cisterns	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1898-1942	NPS	Historic Park Interiors Closed to Public	Good, Historically Maintained	Listed on the National Register
Life Saving Station's Bunker/ Base- end Station	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1898-1947	NPS	Historic Park Interiors Closed to Public	Good, Historically Maintained	Listed on the National Register
Battery Gadsden	1 <sup>st</sup> , 2 <sup>nd</sup> Period 1904-1917	Town of Sullivan's Island	Public Library Cultural Center Garden Club	Fair, Exteriors Deteriorating due to Material Failures Interiors- Reused	Listed on the National Register
Battery Thomson	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1906-1945	Town of Sullivan's Island	Town's Fire- fighting Training Center	Fair, Exterior and Interiors Deterioration due to Material Failures	Listed on the National Register
Battery Logan	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1898-1944	Town of Sullivan's Island	Unused/ Abandoned	Poor, Deterioration due to Vegetation and Material Failures	Listed as a Sullivan's Island Landmark 1987/2003

Battery Butler/Capron	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1898-1942	Town of Sullivan's Island	Gun Pits filled in to create large elevated mound next to Town Park	Fair, Battery covered with fill	Listed as a Sullivan's Island Landmark 1987/2003
Battery Butler/Capron Powerhouse/ Commander's Station	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1898-1942	Town of Sullivan's Island	Unused/ Abandoned	Poor, Deterioration due to Vegetative Growth/ Material Failures	None
CCC Camp Structures Foundations	4 <sup>th</sup> Period 1934-1941	Town of Sullivan's Island	Green Space for Cultural Center Parking Lot	Fair, Deterioration due to Erosion/ Material Failures	SC Dept. Archives and History Marker
Battery 520 Casemated Gun Positions and Sighting Station	4 <sup>th</sup> Period 1943-1947	Private Owner	Four individual residences	Good, Exteriors and Interior spaces maintained by residents	Listed as a Sullivan's Island Landmark 1987/2003
Three remaining Panama Mounts	4 <sup>th</sup> Period 1943-1947	Private Owners	Two reused as foundations for new beach houses. One on the beach	Beach Mount Poor, Deterioration due to Erosion/ Material Loss Reuse Mount Good	None
Communication Bunker	2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1918-1947	Private Owner	Residential Storage	Fair, Deterioration due to Vegetative Growth/ Material Failures	Listed on the National Register and as Sullivan's Island Landmark 1987/2003







**Figure 4.18: 2013 Photograph of the NPS Life Saving Station's Spanish American War Bunker with the First World War Addition of a Base End Station for Battery Capron placed above it. The structure is currently closed to the public with a wood fence placed around the front openings of the base end station. Recently, added to the Fort Sumter National Monument in 2008, the Life Saving Station is being used as a park maintenance area and doesn't provide any interpretation of the island's only remaining base end station. Photograph taken by Author.**



**Figure 4.19: 2013 Photograph of the rear view of Battery Logan, abandoned and overgrown with vegetation- causing significant damage to the historic century old fortification. Photograph taken by Author.**





**Figure 4.20: 2013 Exterior and Interior views of Battery Capron/Butler 1898 Power House Building, overgrown with vegetation and extensive graffiti damage due to be abandoned and not reused after FMMR's decommissioning. Photograph taken by Author.**



**Figure 4.21: 2013 Photograph of the concrete slab and raised footings of the 1934 CCC Camp buildings located behind Battery Gadsden. This historic area is now being used as a green park space adjacent to the town's library but has no protections from being developed further. Photograph taken by Author.**





**Figure 4.22: 2013 Photograph of the northern concrete Panama Mount, partially covered by sand along the beach north of Station 29. The reinforced concrete half circle fortifications is in serious danger of being destroyed by the ocean tides and storms that have twisted the mount's original orientation and caused significant concrete jacking as the internal rebar is exposed to seawater. Photograph taken by Author.**



**Figure 4.23: 2013 Photograph of the FMMR's Communications Bunker located on the beach side of I'On Avenue in front of FMMR's Officer Quarters and now part of 1768 Atlantic Avenue, created after FMMR's decommissioning. Subsequent private owners have converted the bunker's interior space as a storage area, but retained the original concrete walkway for access to the bunker along I'On Avenue. Photograph taken by Author.**

### Existing Spatial Layout Features

In order to support FMMR's variety of military missions throughout its active service, its leadership developed its overall military landscape design by using both early twentieth century military post planning guidance and the urban planning ideas from the City Beautiful movement. Following FMMR's conversion to individual civilian residential lots, certain areas were determined to be incompatible with this new use, such as the Endicott permanent barracks and the temporary Second World War mobilization structures located around the National Guard Camp area. While these two areas' structures were demolished, the remainder of FMMR's land use areas were retained and incorporated into the town's new developmental plan. Because of this inclusion, four different existing elements from FMMR's military planned landscape have been preserved by the Town of Sullivan's Island as seen in Figure 4.24. These features, however, have not been given separate recognition as important relics of the planned military reservation. Because of a lack of understanding about these features, they have not been identified in past historic surveys, which had focused on individual structures, resulting in limited protections for these landscape resources.

Figure 4.24: 2013 FMMR Historic Landscape Survey: Spatial Layout Features

Resource Name	Periods of Significance	Owner	Current use	Current Condition	Protections
Remnant of Parade Field- north of Middle St and to the west of Station 17	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Town of Sullivan's Island	Open Space, Three Lots owned by the town	Good, Cleared and Maintained Green Space	None
Middle Street Prominence as Primary Avenue/ View shed	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Town of Sullivan's Island	Main Transportation Route across Island.	Good, Expanded Roadway Widths and Original Sidewalks Maintained	None
FMMR Spatial Layout of Military Residential Areas	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Town of Sullivan's Island/ Private Owners	Retaining of Historic Structures in same Military designed layout	Good, Historical Similar Land uses	Most Areas include on the National Register and as Sullivan's Island Landmark 1987/2003
FMMR Spatial Layout of Military Support and Recreational Areas	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Town of Sullivan's Island/ Private Owners	Historic Park	Good, Adapting Historic Land use Areas into new Residential Space	Most Areas include on the National Register and as Sullivan's Island Landmark 1987/2003

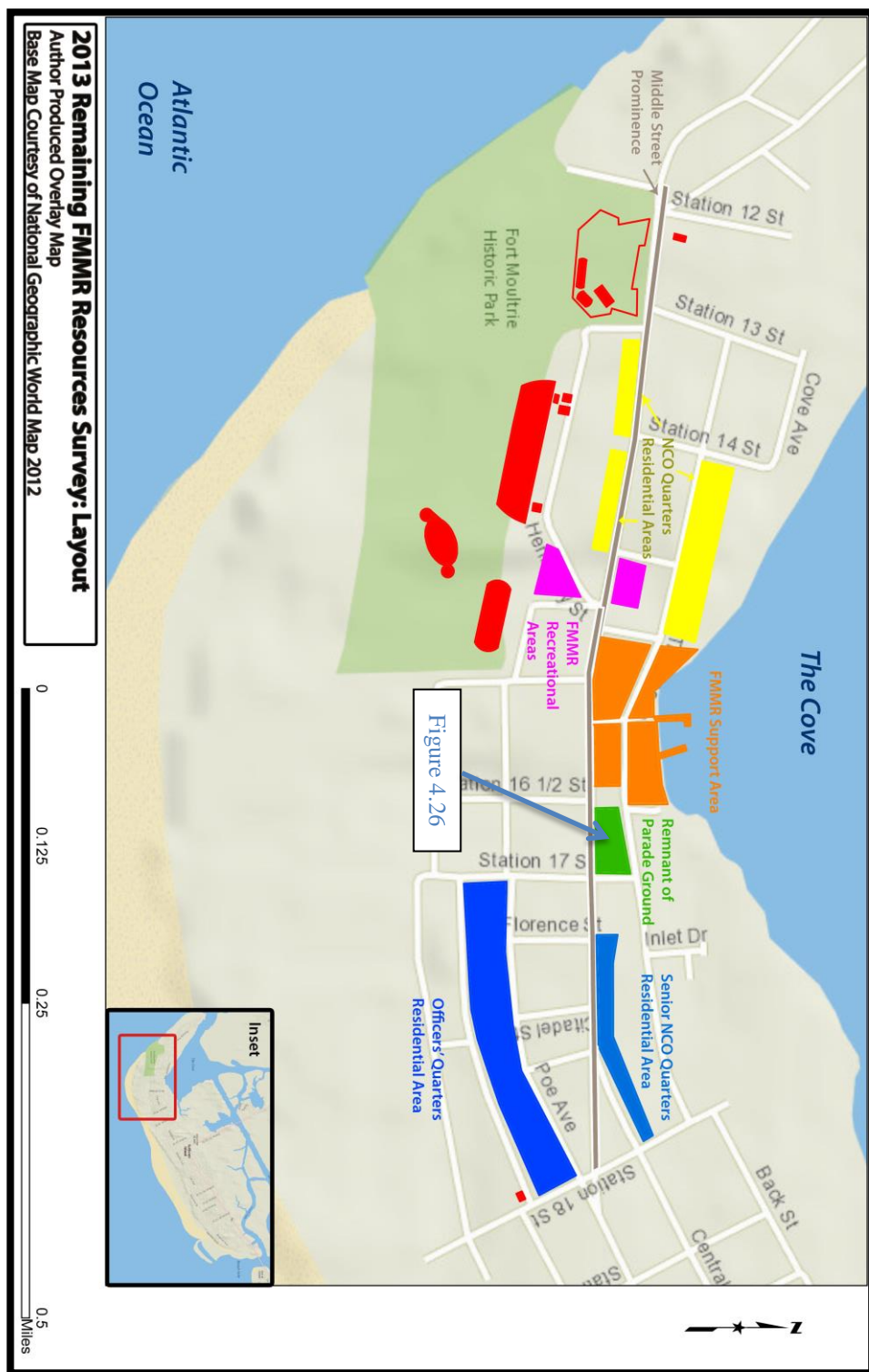


Figure 4.25: 2013 Existing Conditions Map of FMMR's Spatial Layout Resources. Source: author produced GIS/Photoshop basemap.



**Figure 4.26: 2013 Photograph of northern section of FMMR's Parade Ground, the only part that was not subdivided into residential lots. Located on the northwest corner of Middle Street and Station 15, this section of the Parade Ground was the last location of the Reservation's Flagstaff, one of the most important features of a military landscape. Photograph taken by Author.**

#### Existing Physical Setting Features

An important consideration for FMMR leadership over its entire history was how to identify and segregate the military areas of Sullivan's Island from the both the local civilian population and area's harsh environmental setting. Through the application of both permanent and vegetation boundaries, FMMR's landscape had become clearly defined both externally and internally. As a result, individual property owners, who converted their small part of the military landscape for their own uses, removed a majority of the military's physical setting resources. But, five different FMMR features remain as they continue to provide significant defenses from environmental impact or are retained to recognized connections to the military's past involvement on the island landscape. Similar to the FMMR's spatial layout features, these resources have been overlooked during the island's past historic surveys.



Figure 4.27: 2013 FMMR Historic Landscape Survey: Physical Setting Features

Resource Name	Periods of Significance	Owner	Current use	Current Status	Protections
19th Century Harbor Improvements- Stone Jetties	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1895-1947	U.S. Army Corps of Engineers	Protecting Charleston Harbor Channel and Barrier Islands	Good, Jetties have been maintained by Corps of Engineers	None
FMMR Ocean Side Stone Rip-Rap and Timber Seawall	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1897-1947	Town of Sullivan's Island/ Private Owners	Retains traditional purpose along NPS property line and then becomes part of civilian residential lots	Good, Adapting Historic Land use Areas into new Residential Space	Most Areas include on the National Register and as Sullivan's Island Landmark 1987/2003
Two Remaining FMMR 1940 Cannon Pedestal Entrance Markers	4 <sup>th</sup> Period 1940-1947	Town of Sullivan's Island	Marking the Eastern Entrance to the old post along Middle Street	Good, Cleaned and Repainted Regularly	Listed on the National Register and as Sullivan's Island Landmark 1987/2003
FMMR Granite Boundary Markers	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1895-1947	NPS	Marking the Western Boundary of NPS Ft. Moultrie Historic Site	Good, protective barriers placed around them to prevent damage from vehicles, grass cutting	None, besides being located on Ft. Sumter National Monument
FMMR Designed Plantings	4 <sup>th</sup> Period 1934-1947	Private Owners	Retained and incorporated into Private Owner's landscape designs	Mature Plantings that have mixed with native island vegetation	None



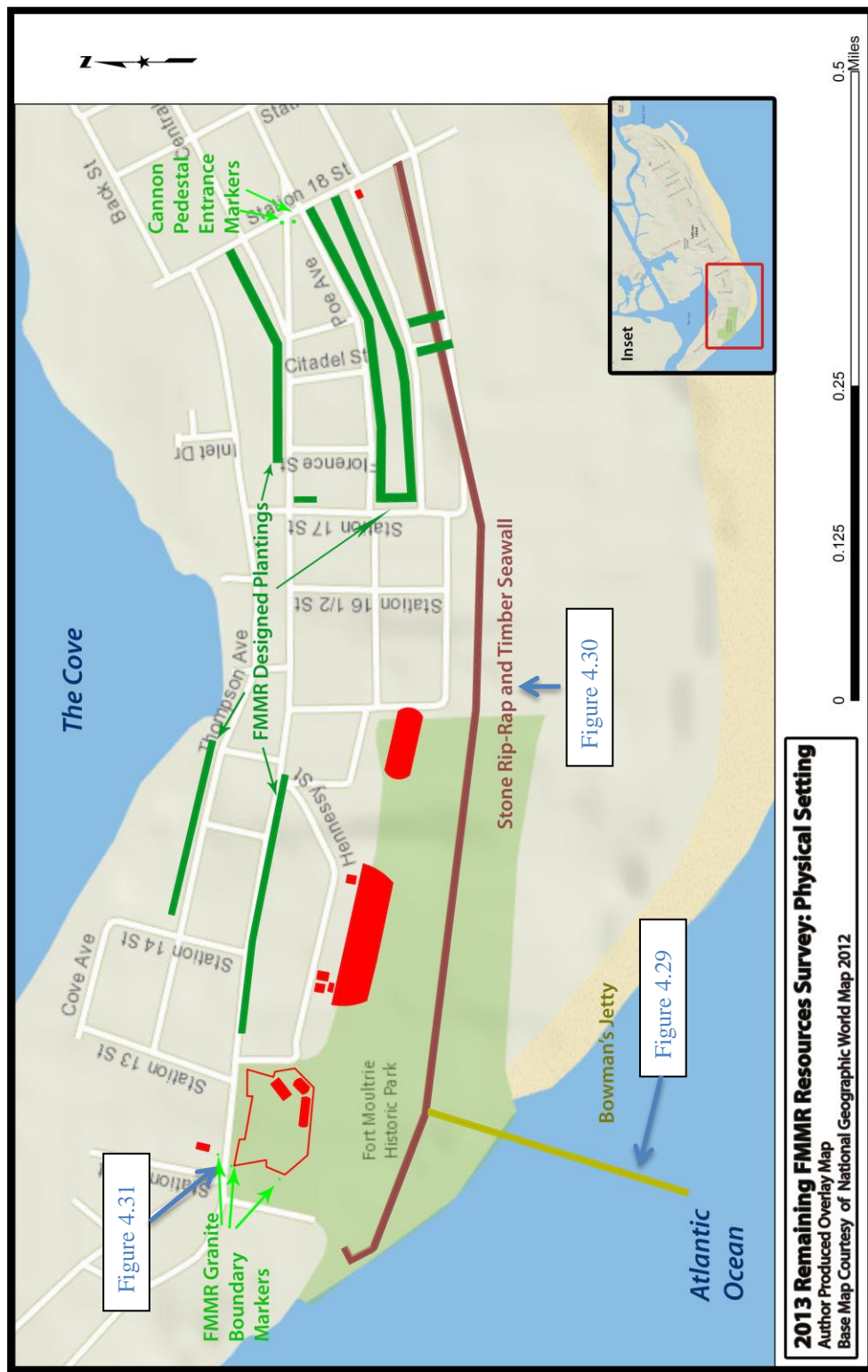


Figure 4.28: 2013 Existing Conditions Map of FMMR's Physical Setting Resources. Source: author produced GIS/Photoshop basemap.



**Figure 4.29: 2013 Photograph of the remains of Bowman's Jetty, the 1840s U.S. Army Corp of Engineers beach stabilization project. This jetty along with ones installed to protect Charleston's Harbor channel in 1890s has caused the buildup of accrued beach along Sullivan's Island eastern shore that continues to add land to the island. Photograph taken by Author.**



**Figure 4.30: 2013 Photographs of the remains of the 1890s Timber and Granite Rip-Rap Seawall. The left image shows the western half of the seawall remains visible along the southern shore of NPS's Fort Moultrie National Monument. The right image shows the eastern half of the seawall that was covered by accrued beach during the early twentieth century and after FMMR decommissioning was converted into sub-divided residential lots. The eastern covered seawall is still visible along Atlantic Avenue even though it has been adapted into beach cottage foundations and other landscape features of its new residential owners. Photograph taken by Author.**



**Figure 4.31: 2013 Photograph of one of the few remaining U.S. granite boundary markers installed during the early twentieth century expansion of Fort Moultrie’s western boundary with Moultrieville. The markers have recently been protected by the NPS staff’s installation of hard plastic tubing to prevent damage from lawn mowing equipment and vehicles. Photograph taken by Author.**

#### Existing Circulation Features

Of all FMMR’s landscape elements, the military’s circulation patterns have the highest level of remaining integrity since the post’s decommissioning in 1947. Developed to support the isolated U.S. Army installation during the first half of the twentieth century, the advanced military networks of road and boat transportation were easily assimilated into the civilian development. FMMR’s roads were used to provide the town’s initial grid for the new subdivided residential lots and have been maintained by the local government ever since. Civilian owners storing and protecting their private boats easily converted the military’s docks to this new purpose. Finally, the Ben Sawyer bridge has become a historic symbol to the island residents, so important to preserve that

a recent replacement bridge was required to match its design. In total, the six major FMMR transportation infrastructure features have been well-maintained over the years and are now an intricate part of the island's circulation plan.

Figure 4.32: 2013 FMMR Historic Landscape Survey: Circulation Features

Resource Name	Periods of Significance	Owner	Current use	Current Condition	Protections
FMMR Military Road Network	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1907-1947	Town of Sullivan's Island	Provides paved transportation routes in converted landscape	Good, Maintained by regular maintenance	None
FMMR Sidewalk Remnants	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1907-1947	Town of Sullivan's Island	Still used as a sidewalk in vicinity of Poe Ave & Middle St	Fair, Concrete deterioration due to material failures	None
Quartermaster Dock	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Private Owners	Abandoned, Recently purchased by new owner, who will restore its historic appearance	Poor, Serious Degradation of Dock timbers and decking due to age and environmental impacts	Listed on the National Register and as Sullivan's Island Landmark 1987/2003
Engineer Dock	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> Period 1902-1934	NPS	Abandoned	Poor, Serious Deterioration of Timber piers due to constant beach erosion/ salt water impacts	None, besides being located on Ft. Sumter National Monument
Coast Guard Dock	4 <sup>th</sup> Period 1935-1947	Private Owners	Private Residence Dock	Good, recently been restored to historic appearances	None
Ben Sawyer Bridge	4 <sup>th</sup> Period 1945-1947	SC Dept. of Transp.	Main Access Route to Sullivan's Island from Mt. Pleasant. Spans the Intracoastal Waterway	Good, Recently replacement of the original bridge with a new bridge that matches the original's design	None



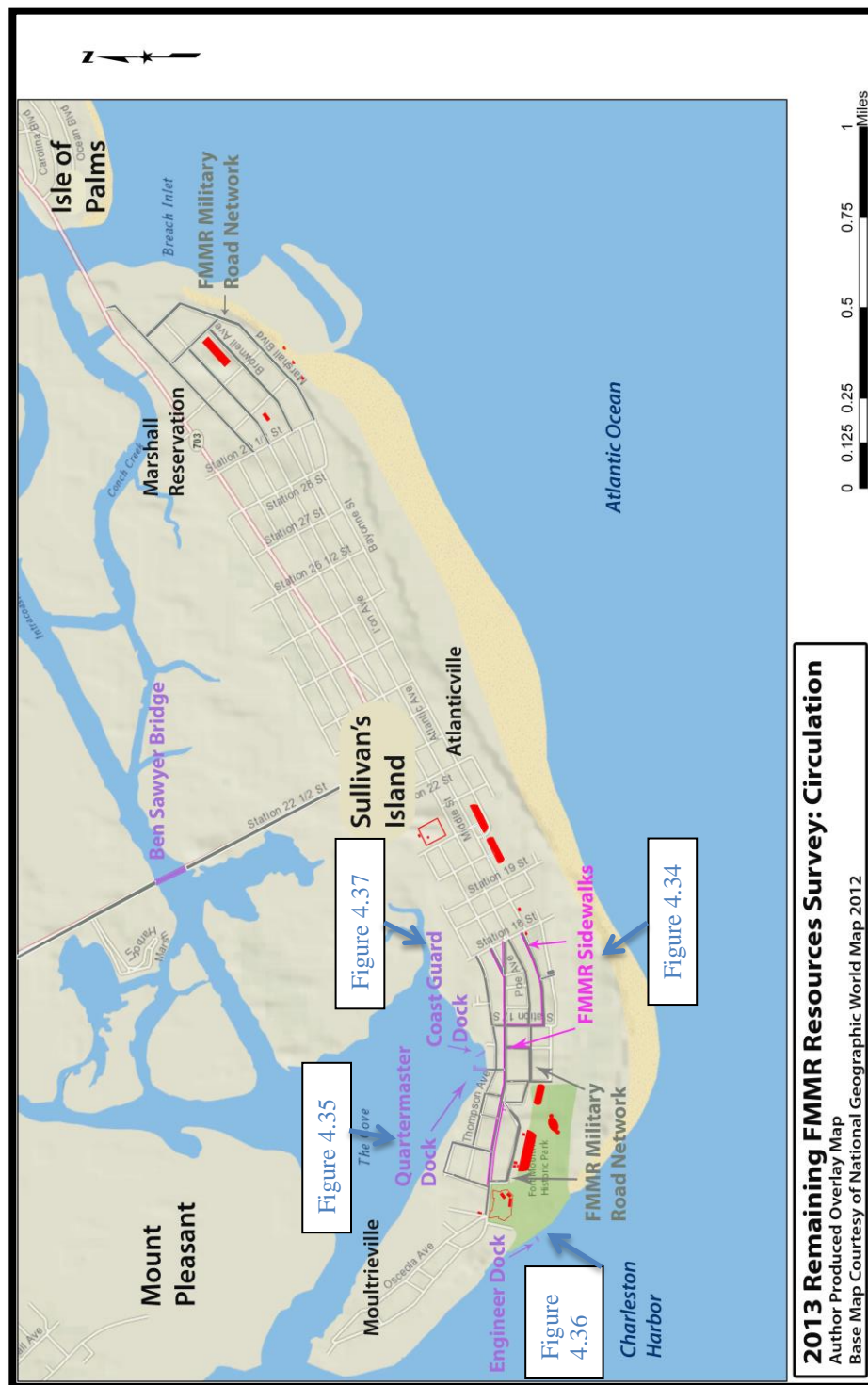


Figure 4.33: 2013 Existing Conditions Map of FMMR's Circulation Resources. Source: author produced GIS/Photoshop basemap.



**Figure 4.34: 2013 Photograph of remains from FMMR sidewalks that were located around the post's Second World War Exchange and Recreational Hall Building. After the FMMR's decommissioning, the building was dismantled with its western portion of the bowling alley being converted into a private residence. Since that time the majority of the lot has remained vacant with only the old sidewalks that led to Middle Street and the Post Gymnasium. Photograph taken by Author.**



**Figure 4.35: 2013 Photograph of deteriorating, unstable, and fenced off FMMR Quartermaster Dock and Dock House. A new owner, who is looking to restore the dock complex for new residential units being built at the nearby Quartermaster Warehouse, has recently purchased the property. Photograph taken by Author.**





**Figure 4.36: 2013 Photograph of the remaining timber piers of FMMR's Engineer Dock used to emplace Charleston's harbor mine defenses during the First World War and was destroyed by storm damage before the Second World War. The dock's remaining piers are under constant attack from the ocean tides and are in serious danger of being lost. Photograph taken by Author.**



**Figure 4.37: 2013 Photograph of FMMR's Coast Guard Dock and Boat Hoist, which has been restored by a private owner for a dock for his personal boats. The dock's current condition is good after the recent restoration and the original military design has been retained. Photograph taken by Author.**



### Existing Utilities Features

The most change to an individual element of FMMR's military landscape after its conversion to residential lots was to the U.S. Army's aging utilities infrastructure. Constructed in the early twentieth century to support the initial construction of the reservation, FMMR's water supply, sewage, electrical, and heating systems were outdated by the 1950s and were incompatible with the island's more advanced civilian systems. During the last half of the twentieth century, as individual military structures were converted into a new use or new structures built on FMMR lands, modern utility lines were attached to update these systems. Also, obsolete utility equipment like both of FMMR's water towers were dismantled during this period to make more room for residential lots. Currently, Sullivan's Island residents are using none of the FMMR's utilities systems and only, the Pump House and numerous structures' cisterns remain on the landscape to illustrate how the U.S. Army provided water to the garrison.

Figure 4.38: 2013 FMMR Historic Landscape Survey: Remaining Utilities Features

Resource Name	Periods of Significance	Owner	Current use	Current Condition	Protections
Pump House/ Reservoir	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Town of Sullivan's Island	Abandon, storage area for Town Utilities	Fair, Deterioration due to material failures and limited maintenance	Reservoir Listed as Sullivan's Island Landmark 1987/2003
Individual Structure's Cisterns	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Private Owners	No longer used for water storage, private owners have developed different adaptive reuses	Fair, Concrete deterioration due to material failures and lack of maintenance	None

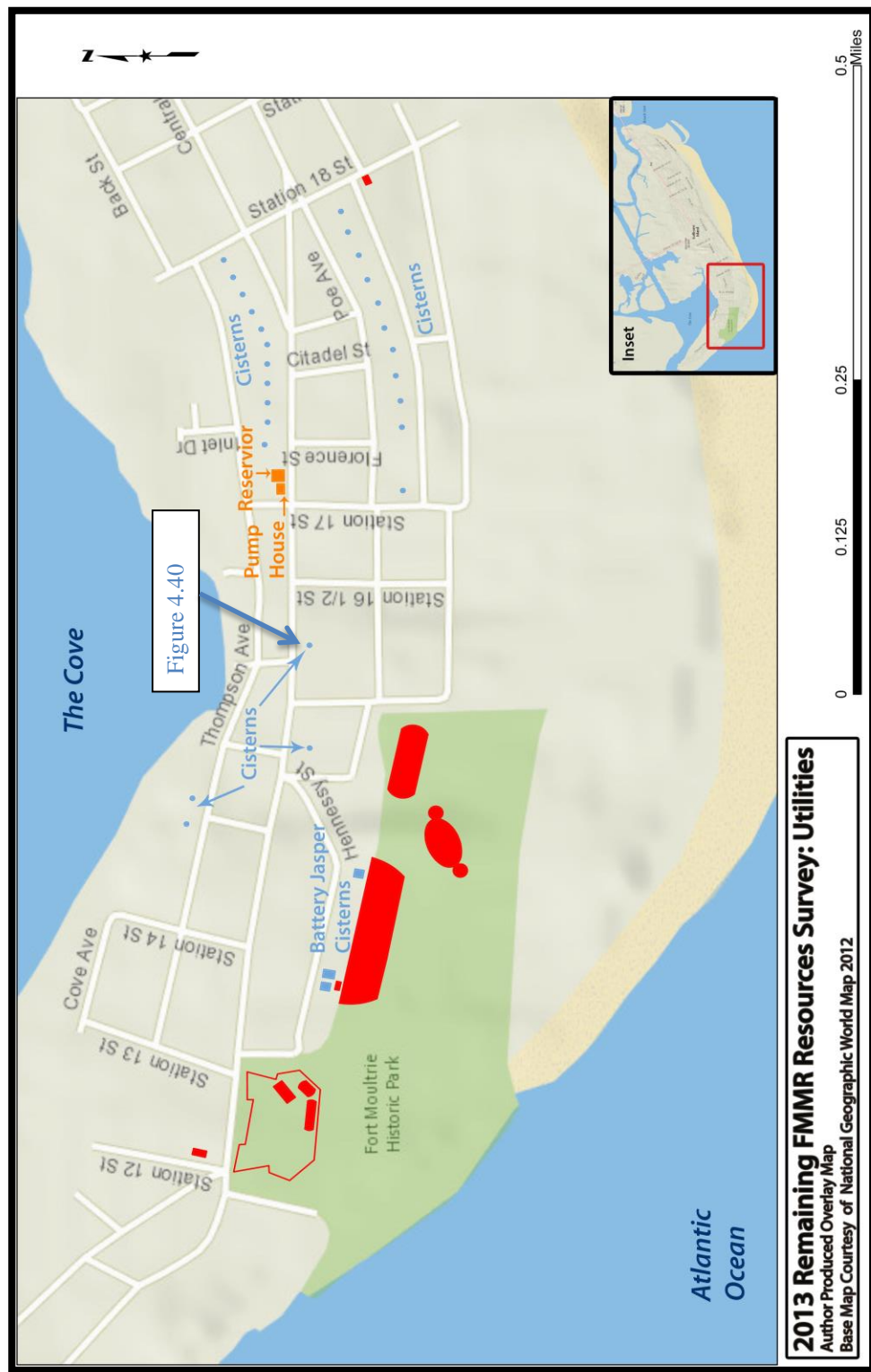


Figure 4.39: 2013 Existing Conditions Map of FMMR's Utilities Resources. Source: author produced GIS/Photoshop basemap.



**Figure 4.40: Photograph of 1603 Middle Street, FMMR's Bakery building that has recently had been enlarged with additional wings on both side of the original structure that also has its original concrete cistern still adjacent to the street. Photograph taken by Author.**

#### Existing Structures Features

The most visible reminders of a twentieth century military reservation that supported the massive Endicott batteries lining the coast of Sullivan's Island are the fifty-five existing structures. With over two hundred and fifty buildings constructed on FMMR during its active military career, the remaining structures have been valued by the island's residents and retained for new uses during the island's half-century of residential development. Appreciated for their attractive designs and structural capabilities for over sixty-five years, two distinct groups of former FMMR structures exist today. First, a majority of the structures have retained a preponderance of their original integrity and design and are recognized as contributing resources in the National Register of Historic Places' Districts and are listed as local distinguishing Sullivan's Island Landmarks. The

other, smaller grouping of structures has been altered by private owners' expanding their FMMR structure's footprints with modern additions in order to make them more livable. While these altered buildings retain some of their historic fabric and sense of place on the FMMR landscape, the overall layout and scale of the structures have changed, resulting in the loss of historic integrity. Fortunately, the value placed by their owners and the greater community for the fifty-five remaining former military structures has allowed this important group to be properly maintained and provide an accurate, if incomplete, representation of the island's military past.

Figure 4.41: 2013 FMMR Historic Landscape Survey: Remaining Structures

Resource Name	Periods of Significance	Owner	Current use	Current Conditions	Protections
Fort Moultrie Quartermaster and Support Historic District: 10 Structures	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Private Owners	Conversion of Military Structures into Private Residences	Good, Maintained by regular maintenance from Private Owners	Listed on the National Register and as Sullivan's Island Landmarks 1987/2003
Sullivan's Island Historic District: 26 Structures	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Private Owners	Conversion of Military Structures into Private Residences	Good, Maintained by regular maintenance from Private Owners	Listed on the National Register and as Sullivan's Island Landmarks 1987/2003
Hospital Steward Quarters	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Private Owners	Conversion of Military Structure into Private Residence	Good, Maintained by regular maintenance from Private Owners	Listed as Sullivan's Island Landmark 1987/2003
Bakery	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1902-1947	Private Owners	Private Residence	Good, Recent additions have altered the structure's exteriors	Listed as Sullivan's Island Landmark 1987- Altered and Removed by 2003

Quartermaster Garage Building	3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1920-1947	Private Owners	Private Residences	Good, Maintained by regular maintenance from Private Owners	Listed as Sullivan's Island Landmark 1987/2003
Jasper Hall	3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1933-1947	South Carolina Electric and Gas Company	Private Club for Company Employees	Good, Maintained by regular maintenance	Listed as Sullivan's Island Landmark 1987/2003
Remaining NCO Quarters at 1307, 1311, 1317, 1321, 1405, 1407, 1411, 1413, 1417 Middle St	2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1918-1947	Private Owners	Private Residence	Good, Recent additions have altered the structure's exteriors	Listed as Sullivan's Island Landmark 1987- Altered and Removed by 2003
Remaining NCO Quarters at 1402, 1418, 1424, 1454 Thompson Ave	2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1914-1947	Private Owners	Private Residence	Good, Recent additions have altered the structure's exteriors	Listed as Sullivan's Island Landmark 1987- Removed by 2003
Remains of Exchange and Recreational Hall	4 <sup>th</sup> Period 1936-1947	Private Owners	Private Residence	Good, Maintained by regular maintenance from Company Owners	Listed as Sullivan's Island Landmark 1987- Altered and Removed by 2003
Post Laundry Concrete Foundation	3 <sup>rd</sup> , 4 <sup>th</sup> Periods 1930-1947	Private Owners	Empty lot at southeast corner of Thompson Ave and Station 15	Fair, Deterioration due to Erosion/ Material Failures	None, located just outside Fort Moultrie Quartermaster and Support Historic District

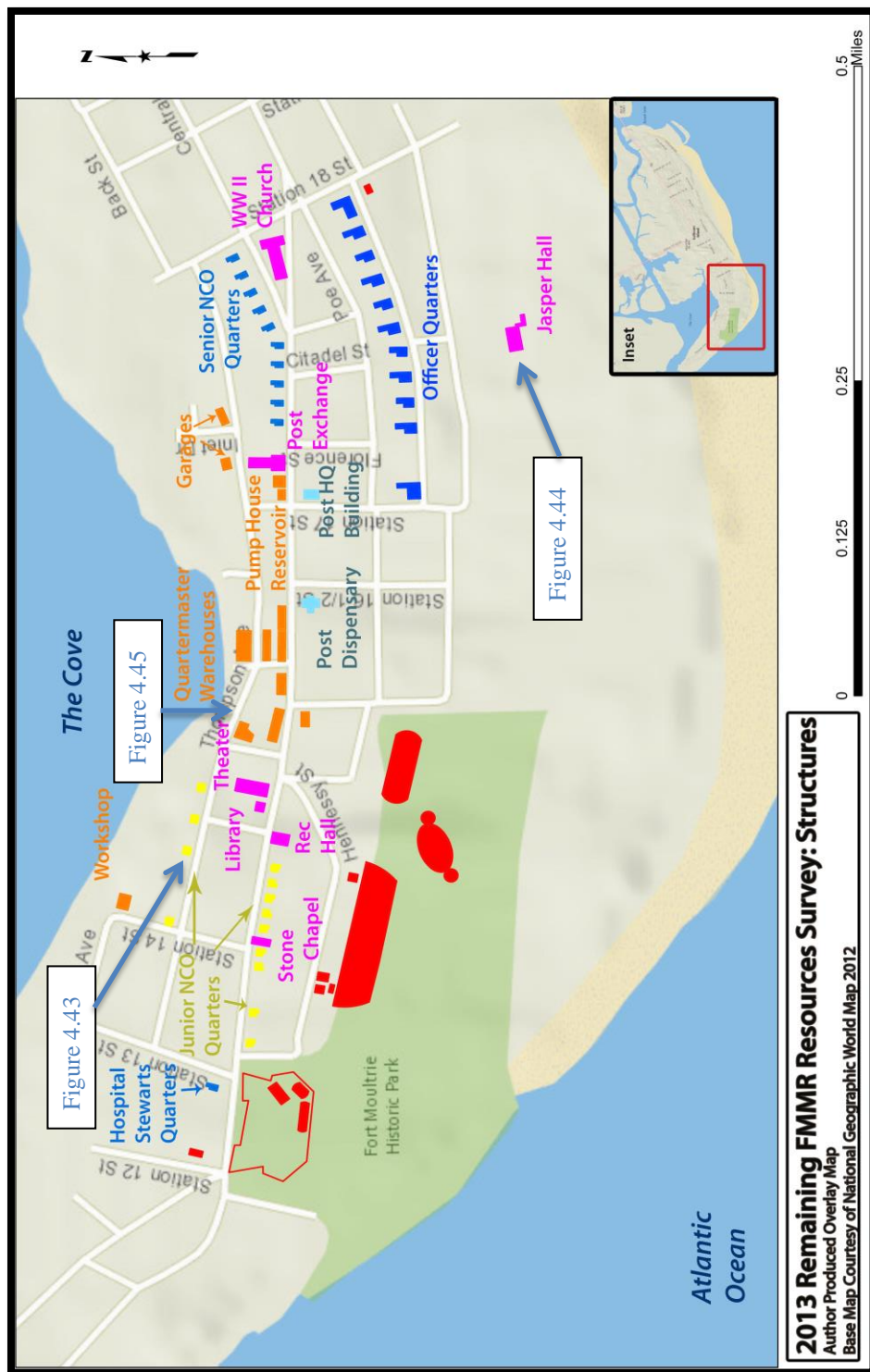


Figure 4.42: 2012 Existing Conditions Map of FMMR's Structures. Source: author produced GIS/Photoshop basemap.





**Figure 4.43: 2012 Photograph of 1424 Thompson Avenue, originally just the front part of the structure was a 1910s NCO Quarters. Recent private owners have added a large two-story addition to the rear of the original house. The NCO Quarter's above ground concrete cistern is still located the west of the original building footprint. Photograph taken by Author.**



**Figure 4.44: 2012 Photograph of the Jasper Club, the old FMMR's Officer Club constructed in the 1930s along the beach and in front of the Officer's quarters row. After decommissioning, the club was purchased by the South Carolina Gas and Electric Company who converted it into a beach clubhouse for its employees. Over the years, the club has been renovated and added onto, significantly altering the original military layout. Photograph taken by Author.**





**Figure 4.45: 2012 Photograph of the remaining concrete foundations of the FMMR Post Laundry Buildings constructed in the 1930s on the southwest corner of the Thompson Avenue and Station 15. The current condition of the foundation is poor because of concrete failures and erosion affects from the advancing vegetation. Photograph taken by Author.**

In conclusion over the past sixty-five years, FMMR has undergone a transformation from its designed military layout with organized mission oriented areas, into a residential community and a national park site that was fashioned inside the military's footprint. Because of the filling in of FMMR's distinct open spaces like the parade grounds with new residential construction and the adaptive reuse of FMMR's support and recreational buildings for new residential uses, its feeling as a connected military reservation has been lost. This dilution of the landscape has been enhanced with the popularity and ease in converting FMMR's family housing like the Officer and Senior NCO Quarters for new civilian owners. These efforts have resulted in a focus of individual private residences being recognized as singular entities at the local and

national levels. Because the primary attention has been placed on these pieces of FMMR's landscape instead of understanding the entire site history, past resources like the military's advanced road network and post utilities systems have been overlooked. These forgotten pieces of the military's presence on Sullivan's Island are important to identify, remember and preserve for the future in order to better relate the history of not just this small barrier island, but the state and national importance of coastal defense installations from the twentieth century.

## CHAPTER FIVE

### SIGNIFICANCE AND INTEGRITY

This chapter provides a summary of the historical significance of FMMR's twentieth century development as a coastal defense installation, and an evaluation of its remaining historic integrity. This chapter is divided into two main sections. The first summarizes the analysis of the site's history and existing conditions by verifying the current presence of historically significant characteristics that shaped FMMR. The National Register of Historic Places' criteria are used to determine which of the possible aspects of cultural heritage applies to this type of military landscape over its history. FMMR's four developmental periods each meet three of the four types of criteria defined in Figure 5.1. FMMR conveys Criterion A, C, and D because of its active participation in the nation's defense over the first half of the twentieth century along with the evolution of a military community closely tied to the civilian development of Sullivan's Island. These general elements of its historic context will be further defined through an examination of each period's areas of significance like architecture, community planning and development, entertainment/recreation, health/medicine, military, and transportation. Finally, this section will conclude with a general statement about FMMR's significance summarizing the overall importance of this historic landscape and making a clear statement about its varying levels of local, state and national significance.<sup>215</sup>

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<sup>215</sup> National Park Service. "How to Identify the Type of Significance of a Property" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (Washington, D.C: 1997) 7-20; Page, Gilbert, & Dolan. *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* 68-71;

Figure 5.1: Defining the National Register of Historic Places Criteria Considerations

National Register Criteria	Definition
Criterion A	Property is associated with events that have made a significant contribution to the broad pattern.
Criterion B	Property is associated with the lives of persons significant in our past.
Criterion C	Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
Criterion D	Property has yielded, or is likely to yield information important in prehistory or history.

National Park Service. "The National Register Criteria for Evaluation" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* Washington, D.C: 1997. 2.

The second half of this chapter is an assessment of the remaining integrity of the FMMR features on Sullivan’s Island and how effectively they convey their significance. By examining each of the periods through the seven aspects of integrity identified in the National Register of Historic Places criteria, this report identifies what FMMR resources has been retained and what level of significance has been preserved. While all of these aspects of location, design, setting, materials, workmanship, feeling, and association will be examined as defined in Figure 5.2; all of them need not be extant as part of Sullivan’s Island landscape to convey a sense of FMMR’s historic past. This consideration is especially important as FMMR has been assimilated over the past sixty-five years into the island’s residential community; so, its remaining existing resources will highlight in varying degrees the remaining general character of the military landscape for each period. In the end, FMMR’s assessment of integrity will clearly state which of these periods have integrity, along with which resources contribute and detract from the military landscape’s

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Loechl, Batzli, & Enscore. *Guidelines for Documenting and Evaluating Historic Military Landscapes: An Integrated Landscape Approach* 43-51.

identity. To conclude this chapter, the analysis of integrity will result in a final map of FMMR landscape characteristics which are significant and retain enough integrity to be included in recommendations for the site's future.<sup>216</sup>

Figure 5.2: Defining the National Register of Historic Places' Aspects of Integrity

Location	Is the place where the historic property was constructed or the place where the historic event occurred?
Design	Is the combination of elements that create the form, plan, space, structure, and style of a property?
Setting	Is the physical environment of the historic property?
Materials	Are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property?
Workmanship	Is the physical evidence of the crafts of a particular culture or people during any given period of history or prehistory?
Feeling	Is a property's expression of the aesthetic or historic sense of a particular period of time?
Association	Is the direct link between an important historic event or person and a historic property?

National Park Service. "How to evaluate integrity of a property" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* Washington, D.C: 1997. 44-45.

## FMMR Analysis of Significance

### 1895-1910: 1<sup>st</sup> Period of Significance

The first fifteen years are the most significant throughout FMMR's entire history. This period caused enormous changes to the island's environment with the establishment of nine Endicott coastal fortifications and their supporting U.S. Army installation, which together would be important to the next fifty years of development. As a result of this period's military building campaigns, the post's growing garrison converted a privately

<sup>216</sup> National Park Service. "How to Evaluate the Integrity of a Property" *National Register Bulletin 15* 44-48; Page, Gilbert, & Dolan. *A Guide to Cultural Landscape Reports: Contents, Process, and Techniques* 71-75; Loechl, Batzli, & Enscoe. *Guidelines for Documenting and Evaluating Historic Military Landscapes: An Integrated Landscape Approach* 51-55.

owned beach cottage area of Sullivan's Island into a complex modern military city. Key to the design of this military landscape, the redevelopment obeyed the U.S. Army's new policies that improved its personnel's standard of living by providing modern civic conveniences that were previously nonexistent on the island. Overall, FMMR is nationally significant during this period under the National Register's Criterion A for its association with the development of the nation's coastal defenses, the evolution of the U.S. Army into a professional military force, and its defense of Charleston's harbor during the Spanish-American War. The site is also nationally significant under Criterion C for the military architecture and post layout that symbolizes the distinctive characteristics of Endicott- Taft Period coastal installations. Additionally, the development of a military installation on Sullivan's Island can be evaluated as locally significant because of its modernization of a simple civilian landscape, using period City Beautiful urban planning ideals that extolled civic improvements in recreation, utilities, and transportation. This fifteen-year period of significance spanned from the beginning of U.S. Army efforts to acquire lands on Sullivan's Island for new batteries in 1895 to the completion of building for FMMR's initial construction period in 1910.

Figure 5.3: 1<sup>st</sup> Period of Significance 1895-1910 Contributing Areas of Significance

Areas of Significance/ Definition	FMMR's Contributions	FMMR Contributing Resources
Military: The system of defending territory and sovereignty of a people.	<ul style="list-style-type: none"> <li>- Defense of Charleston harbor during Spanish-American War</li> <li>- Expansion of Charleston's Coastal Defense Fortifications after the Endicott/ Taft Boards</li> <li>- Protection of Charleston's Naval Yard</li> <li>- Expansion of U.S. Army Garrison on Sullivan's Island</li> </ul>	<ul style="list-style-type: none"> <li>- Endicott Batteries: Jasper, Huger, Logan, McCorkle, Bingham, Lord, Capron/Butler, Thomson, Gadsden.</li> <li>- Harbor Mine Defenses</li> <li>- FMMR supporting installation</li> </ul>
Architecture: The practical art of designing and constructing buildings and structures to serve human needs.	<ul style="list-style-type: none"> <li>- Construction of FMMR buildings using popular period architectural styles</li> <li>- Formal symmetry around the post's central parade ground</li> </ul>	<ul style="list-style-type: none"> <li>- Colonial Revival and Queen Anne Style used in period's buildings</li> <li>- Primary avenues-View sheds</li> </ul>
Community Planning and Development: The design or development of the physical structure of communities.	<ul style="list-style-type: none"> <li>- Designed landscape utilizing a combination of period U.S. Army post planning and City Beautiful ideas</li> <li>- Numerous constructed barriers to protect island from environmental impacts</li> </ul>	<ul style="list-style-type: none"> <li>- Separation of post's land use areas</li> <li>- Importance of parade ground</li> <li>- Harbor jetties</li> <li>- Stone rip-rap and timber seawalls</li> </ul>
Entertainment/Recreation: The development and practice of leisure activities for refreshment, diversion, amusement, or sport.	<ul style="list-style-type: none"> <li>- Provided the first formal leisure areas for the garrison</li> <li>- First gymnasium on the island</li> </ul>	<ul style="list-style-type: none"> <li>- Officers club and post gymnasium</li> <li>- Parade field</li> <li>- Bandstand</li> <li>- YMCA building</li> </ul>
Health/ Medicine: The care of the sick, disabled, and handicapped; the promotion of health and hygiene.	<ul style="list-style-type: none"> <li>- Built the island's first permanent hospital with modern facilities and equipment</li> <li>- Provided the first community utilities services on Sullivan's Island, solely for the garrison</li> </ul>	<ul style="list-style-type: none"> <li>- Hospital</li> <li>- Dispensary</li> <li>- Morgue</li> <li>- Utility networks: running water, sewage, electricity, coal heating</li> </ul>
Transportation: The process and technology of conveying passengers and materials.	<ul style="list-style-type: none"> <li>- Constructed the island's first paved road and sidewalk network inside the post area</li> <li>- Enhanced and incorporated the island's existing external circulation patterns, greatly increasing the capacity for the island to grow both its civilian and military population</li> </ul>	<ul style="list-style-type: none"> <li>- Paved avenues and service roads</li> <li>- Sidewalks</li> <li>- Docks/ Army boats</li> <li>- Support area railroad tracks</li> <li>- Charleston &amp; Seashore Electric Trolley</li> </ul>

National Park Service. "Areas of Significance" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* Washington, D.C: 1997. 8.



### 1910-1920: 2<sup>nd</sup> Period of Significance

Even though the original plans for an Endicott period coastal defense installation was completed in 1910, the continued development of FMMR during the next decade was important. During this period of significance the continued progression of the U.S. Army into a professional international fighting force would be tested during the largest military conflict in modern history to this point. FMMR abilities to quickly adapt to new wartime missions and provide rapidly constructed residential areas for its growing garrison allowed it to become South Carolina's largest military installation.

Improvements to the post's health, transportation, and utilities services during this period adequately supported the tripling of the post's original garrison in just a few months after war was declared. Overall, FMMR is significant under Criterion A during this period for its military contributions in enhancing the nation's coastal defenses and defending Charleston's harbor during the First World War. Additionally, FMMR's provisioning and training of state and local mobilization efforts greatly increased the size of the installation and provided trained manpower to units preparing for overseas service. The expansion of the installation's design and infrastructure - with the construction of a U.S. Army 600-series temporary mobilization camp and additional required permanent post structures during this ten year span - makes FMMR also significant under Criterion C. FMMR's second period of significance began with its internal technological improvements to its armaments in 1910, continued through its participation in the First World War, and concluded after the demobilization of the nation's large wartime forces by 1920.

Figure 5.4: 2<sup>nd</sup> Period of Significance 1910-1920 Contributing Areas of Significance

Areas of Significance/ Definition	FMMR's Contributions	FMMR Contributing Resources
Military: The system of defending territory and sovereignty of a people.	<ul style="list-style-type: none"> <li>- Defense of Charleston harbor during First World War</li> <li>- Training facility for mobilizing overseas troops</li> <li>- Improvements to Charleston's Coastal Defense Fortifications</li> <li>- Expansion of installation with the development of the Marshall Reservation</li> </ul>	<ul style="list-style-type: none"> <li>- Endicott Batteries: Jasper, Huger, Logan, McCorkle, Bingham, Lord, Capron/Butler, Thomson, Gadsden.</li> <li>- Base-end stations and searchlight positions</li> <li>- Marshall Reservation</li> </ul>
Architecture: The practical art of designing and constructing buildings and structures to serve human needs.	<ul style="list-style-type: none"> <li>- Mirrored the Colonial Revival and Queen Anne Style of Endicott construction in new permanent residential units</li> <li>- Built a temporary mobilization camp utilizing U.S. Army's World War I standardized plans</li> </ul>	<ul style="list-style-type: none"> <li>- FMMR Junior Non-Commissioned Officer quarters</li> <li>- World War I 600-series cantonment camp</li> </ul>
Community Planning and Development: The design or development of the physical structure of communities.	<ul style="list-style-type: none"> <li>- Development of two main mission areas of the installation</li> <li>- Increasing identification as a military landscape with marking of key structures</li> <li>- Segregation of areas according to layout and emplaced barriers</li> </ul>	<ul style="list-style-type: none"> <li>- Parade field/ barracks area and new mobilization camp area</li> <li>- Shell casings as signage landscape features</li> <li>- Designed planting</li> </ul>
Health/ Medicine: The care of the sick, disabled, and handicapped; the promotion of health and hygiene.	<ul style="list-style-type: none"> <li>- Expansion of FMMR utilities network to new post areas</li> <li>- Expansion of hospital facilities to increase wartime capacity and prevent disease epidemics</li> </ul>	<ul style="list-style-type: none"> <li>- Enlarging FMMR utilities network</li> <li>- Growth of hospital facilities</li> </ul>
Transportation: The process and technology of conveying passengers and materials.	<ul style="list-style-type: none"> <li>- Expansion of FMMR transportation network to new areas</li> <li>- Increased use of motor transportation</li> </ul>	<ul style="list-style-type: none"> <li>- Expansion of FMMR primary avenues and service roads</li> <li>- Marshall Reservation access road</li> </ul>

National Park Service. "Areas of Significance" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* Washington, D.C: 1997. 8.

### 1920-1933: 3<sup>rd</sup> Period of Significance

FMMR's third period of significance occurred during the nation's economically turbulent interwar period that began with robust economic opportunities immediately after the First World War until its shocking plunge into the Great Depression. The federal government's isolationist policies during the 1920s reduced the size of the Regular Army and increased defense responsibilities were placed on the nation's developing reserve forces. FMMR was involved in both parts of this national military reorganization when it reduced its CAC garrison and obsolete armaments while constructing a new National Guard training camp on the site of the salvaged World War I mobilization camp. By creating upgraded living, training, and recreational areas for the thousands of reserve soldiers visiting the post each year, FMMR's landscape indoctrinated these American citizens not just with military experience, but with a desire for modern amenities like improved electric utilities and automotive transportation. During this dynamic period, FMMR was both nationally and locally significant under Criterion A because of its participation in the reduction of the U.S. Army's Regular Army forces and outdated Endicott armaments at the same time that the post was required to support its new mission of facilitating annual training for southeastern United States' reserve units. The construction and layout of FMMR National Guard Camp provides an example of improvements in construction methods, hygiene and recreation facilities to the U.S. Army's World War I 600-series mobilization camps and is significant under Criterion C for showcasing these urban planning advances to the large numbers of visiting reserve soldiers, who shared these lessons with their hometowns. Overall, FMMR

interwar era spanned a total of fourteen years from the 1920 reorganization of the U.S. Army into a smaller peacetime force until the 1933 completion of the National Guard camp and expanded training areas.

Figure 5.5: 3rd Period of Significance 1920-1933 Contributing Areas of Significance

Areas of Significance/ Definition	FMMR's Contributions	FMMR Contributing Resources
<b>Military:</b> The system of defending territory and sovereignty of a people.	<ul style="list-style-type: none"> <li>- Training facility for local states' National Guard &amp; Reserve units' annual exercises</li> <li>- Expansion of training areas with the mobile gun positions and rifle range on Marshall Reservation</li> <li>- Reduction of outdated Endicott armaments reducing the number of batteries required to protect the harbor</li> </ul>	<ul style="list-style-type: none"> <li>- National Guard camp</li> <li>- Mobile gun positions</li> <li>- Rifle range</li> <li>- Remaining Endicott batteries: Jasper, Huger, Logan, Lord, Capron/Butler, Thomson.</li> </ul>
<b>Architecture:</b> The practical art of designing and constructing buildings and structures to serve human needs.	<ul style="list-style-type: none"> <li>- National Guard camp design combine infrastructure and material improvements over the World War I 600-series plans</li> <li>- New permanent structures match styles from post's original construction period</li> </ul>	<ul style="list-style-type: none"> <li>- National Guard camp</li> <li>- Post theater</li> <li>- Post library</li> <li>- Post laundry</li> </ul>
<b>Community Planning and Development:</b> The design or development of the physical structure of communities.	<ul style="list-style-type: none"> <li>- Salvage of WWI cantonment camp for space to build National Guard camp</li> <li>- Formalized Post entrances</li> <li>- Closure of FMMR open landscape to protect civilians</li> <li>- Filling in of open areas or new accrued lands for new purposes</li> </ul>	<ul style="list-style-type: none"> <li>- National Guard camp</li> <li>- Main entrance markers: World War I excess howitzers</li> <li>- Perimeter fencing</li> </ul>
<b>Entertainment/Recreation:</b> The development and practice of leisure activities for refreshment, diversion, amusement, or sport.	<ul style="list-style-type: none"> <li>- Expanded leisure activities for the garrison and reserve forces</li> <li>- Island's first theater and library</li> <li>- New Officer's Club further segregated facilities between officer and enlisted ranks</li> </ul>	<ul style="list-style-type: none"> <li>- Post theater</li> <li>- Post library</li> <li>- Jasper Hall</li> </ul>

Health/ Medicine: The care of the sick, disabled, and handicapped; the promotion of health and hygiene.	<ul style="list-style-type: none"> <li>- Improved hygiene facilities to support FMMR's periods enlarged training mission</li> <li>- Improved utilities for garrison by updating appliances with new electric powered ones: technologic advancement unmatched by other local communities</li> </ul>	<ul style="list-style-type: none"> <li>- Post laundry</li> <li>- National Guard camp latrines</li> <li>- Electricity improvements to post utilities</li> </ul>
Transportation: The process and technology of conveying passengers and materials.	<ul style="list-style-type: none"> <li>- Conversion of trolley bridge into automobile access span</li> <li>- Improvements to local and regional automobile routes</li> <li>- Construction of garages to shelter increasing number of vehicles owned by the garrison</li> </ul>	<ul style="list-style-type: none"> <li>- Cove Trolley bridge</li> <li>- FMMR road network</li> <li>- Garages</li> </ul>

National Park Service. "Areas of Significance" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* Washington, D.C: 1997. 8.

#### 1934-1947: 4<sup>th</sup> Period of Significance

Second in importance during its entire development, FMMR last period of significance witnessed changing military missions during several key events in the nation's history: from New Deal economic recovery projects, to the mobilization, defense, and eventual reduction of coastal defenses in the Second World War. To adapt to these varying mission requirements, FMMR's designed landscape of segregated land use areas became disorganized as all available space accommodated various Army buildings campaigns. Additionally during the war, the remaining fifty-year old Endicott batteries were decommissioned as new military technology and improved coastal defense theory made them obsolete and caused the construction of new modern fortifications that filled even more open areas across the installation. By the end of this period and its career, FMMR's coastal defense mission had become obsolete and its landscape unsuitable for other military reuse. The military's decision not to adapt FMMR was supported locally because of the island's increasing civilian popularity, as new civic and

transportation improvements made life easier on Sullivan’s Island. Overall, FMMR’s complex military service during this period is significant under Criterion A for its association with multiple military elements in the nation’s history including the CCC experience in South Carolina, mobilization of CAC units before and during the Second World War, and the gradual replacement of its coastal defense mission with a more supporting administrative mission by the conclusion of the war. At the same time, the installation is also significant under Criterion C for its military architecture that embodies the features of Second World War mobilization camps that applied upgraded construction materials and centralized layout designs along with improvements in soldiers’ living conditions and recreational opportunities. FMMR’s final period of significance spanned a busy thirteen years, beginning with the country’s New Deal economic reforms in 1934 to its end with the U.S. Army’s decision to deactivate the installation in 1947.

Figure 5.6: 4<sup>th</sup> Period of Significance 1934-1947 Contributing Areas of Significance

Areas of Significance/ Definition	FMMR’s Contributions	FMMR Contributing Resources
Military: The system of defending territory and sovereignty of a people.	<ul style="list-style-type: none"> <li>- Combined Army/ Navy defense of Charleston harbor during Second World War</li> <li>- Supervision of the South Carolina’s CCC headquarters and training center</li> <li>- Construction of 1940 Coastal Defense modernization fortifications</li> <li>- Mobilizing center for Coastal Artillery Corps units in the southeastern United States</li> <li>- WAC and limited service troops replaced garrison as war ended</li> </ul>	<ul style="list-style-type: none"> <li>- HECP/ HDCP</li> <li>- CCC camp at Thomson/ Gadsden</li> <li>- Battery 520</li> <li>- Battery 230</li> <li>- 90mm gun positions</li> <li>- Panama mounts</li> <li>- 1940 Overseas Service Discharge &amp; Replacement Depot</li> <li>- Hutment area, Modified Theater of Operations buildings</li> </ul>

Architecture: The practical art of designing and constructing buildings and structures to serve human needs.	<ul style="list-style-type: none"> <li>- Various campaigns of U.S. Army World War II mobilization construction plans used to expand the installation</li> <li>- Conversion of National Guard camp into Hutment area</li> <li>- CCC use of military architecture for its buildings</li> </ul>	<ul style="list-style-type: none"> <li>- Hutment camp area</li> <li>- 700-series mobilization buildings</li> <li>- Modified Theater of Operations buildings</li> <li>- 1945 built church</li> <li>- CCC Camp at Thomson/ Gadsden</li> </ul>
Community Planning and Development: The design or development of the physical structure of communities.	<ul style="list-style-type: none"> <li>- Rapid mobilization resulted in the abandonment of the post's original layout as temporary structures filled in all available space</li> <li>- Matching additions to permanent buildings instead of constructing new ones.</li> <li>- Quartermaster Corps' planned landscape plantings</li> </ul>	<ul style="list-style-type: none"> <li>- Mobilization camp areas</li> <li>- Post headquarters</li> <li>- Guard house</li> <li>- FMMR 1940 entrance gate markers</li> <li>- Plantings around post's quarters</li> </ul>
Entertainment/Recreation: The development and practice of leisure activities for refreshment, diversion, amusement, or sport.	<ul style="list-style-type: none"> <li>- Expanded recreational facilities and diversity of sports and activities greatly increasing morale</li> <li>- Selected as the 3<sup>rd</sup> Army Recreation Center because of its entertainment resources</li> </ul>	<ul style="list-style-type: none"> <li>- Post Exchange and Recreation Center</li> <li>- Gymnasium</li> <li>- Sports fields/ courts</li> <li>- FMMR golf course</li> <li>- Lifeguarded beaches</li> </ul>
Health/ Medicine: The care of the sick, disabled, and handicapped; the promotion of health and hygiene.	<ul style="list-style-type: none"> <li>-Expansion of hospital facilities to increase wartime capacity and provided specialized care</li> <li>- Growth of post utilities systems for large wartime garrison and providing services to new mobilization camps</li> </ul>	<ul style="list-style-type: none"> <li>- Expansion of hospital complex</li> <li>- Marshall Reservation waste water facility</li> <li>- Cove area water tank</li> </ul>
Transportation: The process and technology of conveying passengers and materials.	<ul style="list-style-type: none"> <li>- Post leadership's campaign to pave all transportation routes</li> <li>- Increased access to Sullivan's Island, reduces travel time</li> <li>- Transportation infrastructure improvements improve logistics and movement of wartime personnel</li> </ul>	<ul style="list-style-type: none"> <li>- Improvements to FMMR road network</li> <li>- Intracoastal Waterway</li> <li>- Ben Sawyer bridge</li> <li>- Coast Guard dock</li> <li>- Quartermaster dock</li> </ul>

National Park Service. "Areas of Significance" *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* Washington, D.C: 1997. 8.



### Overall Statement of FMMR Significance

FMMR is significant in American history as the site of a United States Army coastal defense installation that directly affected both the national, state, and local military defense at the same time it contributed directly to the civilian development of Sullivan's Island and the surrounding Charleston area. Established in the 1890s and continuing until the late 1940s, FMMR's coastal defenses were a vital part of the nation's system of fortifications that were technologically advanced and guarded its most important harbors. Sullivan's Island's large and geographically separated concrete and casemated gun batteries protected Charleston's harbor for over fifty years and during three of America's conflicts: the Spanish-American War, the First and Second World Wars. To support these imposing coastal fortifications, the U.S. Army constructed a three hundred acre installation spread across all areas of the island that housed fluctuating-sized regular and reserve force garrisons over its entire history. To provide suitable facilities for its increasingly professional force during the first half of the century, the U.S. Army applied City Beautiful design elements and other subsequent urban planning principles to create improved installations across the nation with all modern amenities. As a result of these improvements throughout its history, FMMR's military garrison and their local civilian neighbors were exposed to the period's leading architectural and community planning innovations, which they could then applied to their own hometowns or local communities. FMMR had a huge impact on the island itself during this period, as its smaller civilian community became an interconnected partner to

the military's garrison, providing civilian staff and various services to the island's largest economic force.

In conclusion, FMMR's landscape is significant under Criterion A of the National Register of Historic Places for association with the development of coastal defense during the first half of the twentieth century and for its active participation in defending the nation during this period's three major wars. The landscape is also significant under Criterion C for its accumulation of United States Army military architecture that was developed over various campaigns that utilized standardized design plans that promoted the use of leading urban development, along with the necessity to rapidly support wartime mobilization efforts. Finally, all FMMR's developmental periods are significant under Criterion D, because of the important archaeological information they have already yielded or will likely yield in the future about the island's military history. In total, FMMR's periods of significance spans from 1895 when the U.S. began its coastal defense expansion on Sullivan's Island and concludes with the U.S. Army's decision in 1947 to decommission its military installation.

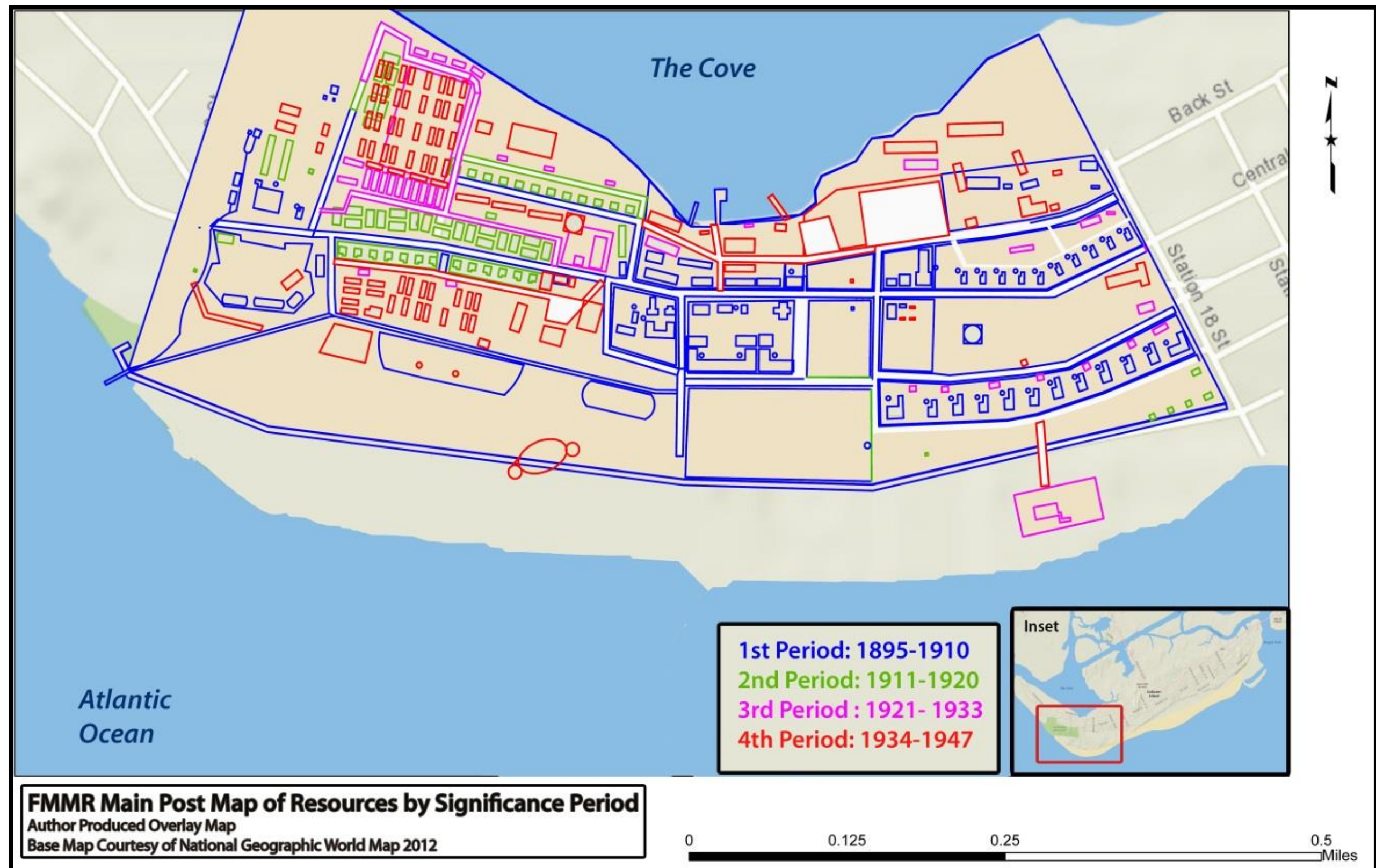


Figure 5.7: Composite Map of FMMR Main Post showing the combined FMMR significant features by period of construction. Source: author produced GIS/Photoshop basemap.

### FMMR Analysis of Integrity

Integrity is defined by the National Register of Historic Places as “the ability of a property to convey its significance.”<sup>217</sup> The difficulty in evaluating the integrity of a complex military landscape like FMMR is that the site has undergone a sixty-five year campaign of civilian adaptive reuse into a residential beach community. Increasingly common for America’s twentieth century decommissioned military bases, their conversion into new public or private uses has resulted in the transformation of these sites to such a great degree that little from their military ownership can be identified without a detailed historical study and close examination. Many of the features that contributed to FMMR’s four periods of significance have been altered or destroyed to a degree that they no longer retain enough integrity to convey their significance. By comparing the overall site history with its current conditions, however, FMMR’s remaining contributing resources do retain some aspects of the character and identity that makes this military landscape significant to the nation, its state, and its local community.

By reviewing each of FMMR’s periods of significance against the National Register of Historic Places seven aspects of integrity, some general findings can be concluded about specific qualities of the overall remaining FMMR’s landscape. First, the retention of individual features at their original military position has assisted in general with retaining the first aspect of integrity- location. Over the past sixty-five years, the military’s layout of features have remained the same because new civilian owners have kept the location of FMMR structures, like the Officer and Senior NCO quarters, or have

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<sup>217</sup> National Park Service. “How to Evaluate the Integrity of a Property” *National Register Bulletin* 15 44.

had difficulty in moving them to new areas because of their permanent nature, such as FMMR's reinforced concrete batteries or asphalt paved road network. Another shared finding about FMMR's remaining integrity is the retention of original materials used in the construction of the installation's remaining resources. Keeping its historic materials, FMMR features like the granite boulders of post's original seawall, the exterior colonial revival facades of most remaining structures, and the concrete used to construct the installation's fortifications, foundations, and sidewalks, remain visible links to the post's military past. Finally, the overall workmanship of the remaining FMMR resources have little distinguishing characteristics since most of these features were constructed using standardized Army plans by unknown civilian contractors and unskilled military labor. In the end, it is the remaining four aspects of integrity: design, setting, feeling, and association, which differed during each of FMMR's four periods of significance and requires a careful evaluation of each period to recognize their remaining importance.

### Integrity of the 1<sup>st</sup> Period of Significance Remaining Resources

The essential physical features that help to define FMMR's initial period of significance include the Endicott batteries and the City Beautiful inspired U.S. Army post that supported its military mission. The majority of these period's resources, including most of the fortifications, permanent family housing, and post support structures are still visible on the landscape today. On the other hand, a key detractor from this period's ability to retain its integrity is the lack of understanding the post's open designed landscape after the subdividing of FMMR open areas and the destruction of its Endicott barracks in the 1950s. Evaluating the integrity of the landscape as a whole, the location, materials, and workmanship of most of this period's remaining resources have been altered little in their new adaptive reuses. When this period is evaluated on the aspects of setting, feeling, and association as seen in Table #7, however, the landscape is not so easily recognizable for its military importance. Overall, the past one hundred years of development since the end of FMMR's first period of significance has caused meaningful changes to its historical sense of place; but, because of the permanence of its remaining features, this period is central to the remaining integrity of FMMR.

Figure 5.8: 1<sup>st</sup> Period of Significance: 1895-1910 Evaluation of Aspects of Integrity

Aspects of Integrity rating*	Evaluation of FMMR Existing Status	FMMR Remaining Contributing Resources
Design 3 out of 5	FMMR landscape has become filled with additional civilian lots on top of the original Endicott era layout. Military roads and housing areas have been retained in their original City Beautiful configuration.	<ul style="list-style-type: none"> <li>- Endicott batteries</li> <li>- FMMR road network</li> <li>- Officer Quarters, Senior NCO Quarters, Junior NCO Quarters.</li> </ul>
Setting 2 out of 5	Diminished integrity since FMMR open environment has been altered with new construction and the expansion of vegetation except for a few places. FMMR oceanfront boundary has been expanded with new accrued land and filled with subsequent residential lots that mask the original border	<ul style="list-style-type: none"> <li>- Open areas in front of the Fort Moultrie, Battery Jasper and Battery Logan</li> <li>- Remaining open areas like the parade field remnant and water tower field</li> <li>- Stone rip-rap and timber seawall</li> </ul>
Feeling 2 out of 5	FMMR existing residential-filled areas retain little of the overall feeling of the Endicott era military installation, except for parts owned by the National Park Service and open areas around the FMMR Headquarters building	<ul style="list-style-type: none"> <li>- Fort Moultrie's NPS batteries: Jasper, Bingham, &amp; McCorkle.</li> <li>- Remaining open areas: parade field remnant and water tower / tennis courts</li> </ul>
Association 2 out of 5	Diminished ability to link the period's Endicott batteries mission of defending Charleston to FMMR's other remaining features because of expanding residential growth and vegetation covering Batteries Butler, Thomson, Gadsden, and Logan.	<ul style="list-style-type: none"> <li>- Fort Moultrie's Endicott batteries: Bingham, McCorkle, Jasper</li> </ul>

\*Each of these aspects was ranked on a scale from 1 to 5: with a ranking of 1 for resources with no retention of period's integrity and a 5 for a period's resources that have a high level of integrity.



### Integrity of the 2<sup>nd</sup> Period of Significance Remaining Resources

FMMR's second period of significance was dominated by the continued development of additional permanent junior Non-Commissioned Officer quarters and the First World War mobilization camp, both constructed in the vicinity of the unoccupied cove area of the installation. These additional areas, while secondary in overall importance to the FMMR's original Endicott period layout, became increasingly important as they supported the large wartime increases to the garrison. Most of this period's features are no longer visible, however, because they had been destroyed after the war because they were intended to be temporary, or later in the twentieth century their limited size made them difficult to reuse without significant additions and improvements. Figure 5.9 shows the evaluation of this period's remaining resources that can provide only minimal conveyance of this period's significance. Overall, besides some limited remaining resources, like the reservation's only existing base-end station and the cove's military road network, this period retains the least identity as an important part in FMMR's history.

Figure 5.9: 2nd Period of Significance: 1910-1920 Evaluation of Aspects of Integrity

Aspects of Integrity rating*	Evaluation of FMMR Existing Status	FMMR Remaining Contributing Resources
Design 2 out of 5	Diminished integrity due to destruction of World War I cantonment camp layout and the replacement of the majority of Junior NCO Quarters with new larger beach houses built on their original locations. Only a few of these residences remain.	- Junior NCO Quarters along Middle and Thompson Streets - Lifesaving station bunker and Base-end station
Setting 2 out of 5	Diminished integrity due to the new construction infill and vegetation growth of the cove area. The Junior NCO Quarters and FMMR road network remain.	- FMMR road network - Junior NCO Quarters along Middle and Thompson Streets
Feeling 1 out of 5	No retention of historic feeling of the cove's military importance to FMMR during World War I's mobilization.	- None
Association 2 out of 5	Limited remaining features like the only FMMR existing base-end station and the Endicott batteries help to link FMMR to its wartime service.	- Lifesaving station bunker and Base-end station - Endicott batteries

\*Each of these aspects was ranked on a scale from 1 to 5: with a ranking of 1 for resources with no retention of period's integrity and a 5 for a period's resources that have a high level of integrity.

### Integrity of the 3<sup>rd</sup> Period of Significance Remaining Resources

FMMR's interwar period of significance reflected the nation's isolation policies and attitudes towards military preparedness by reducing the number of Endicott batteries on Sullivan's Island, while increasing the U.S. Army's responsibility to train its increasing reserve forces. This period's significant resources focused on the construction of a National Guard Camp along with additional training and recreational improvements in support of FMMR's new military mission. The majority of this period's resources have been demolished with only a few of the more permanent features visible that still convey the importance of this part of FMMR's history. While the post's existing recreational improvements of a theater, library, and officer club from this period retain enough of their design, setting, and overall feeling as shown in Figure 5.10, the remainder of this period's identity has been lost. Overall, the integrity of FMMR interwar period retains more of its significance than the preceding period, but it has a diminished total integrity as compared to FMMR's two other periods of significance.

Figure 5.10: 3<sup>rd</sup> Period of Significance: 1920-1933 Evaluation of Aspects of Integrity

Aspects of Integrity rating*	Evaluation of FMMR Existing Status	FMMR Remaining Contributing Resources
Design 3 out of 5	Mixture of remaining features retains the layout of the period's entertainment improvements while not retaining the cove area's improved National Guard camp or the post's automobile improvements like the many garages that were constructed.	<ul style="list-style-type: none"> <li>- Post theater</li> <li>- Post library</li> <li>- Jasper Hall</li> <li>- Post laundry foundations</li> </ul>
Setting 2 out of 5	Limited integrity of the open landscapes around this period's recreational structures. While other period specific areas like the National Guard camp, have none due to new construction and vegetation growth	<ul style="list-style-type: none"> <li>- Open lots surrounding the theater, library, and Jasper Hall- not subdivided into residential structures.</li> </ul>
Feeling 2 out of 5	Limited remaining feeling of this period's place in time except for the remaining recreational facilities that match the architecture design and urban improvements that this period in the nation's history brought to military posts.	<ul style="list-style-type: none"> <li>- Post theater</li> <li>- Post library</li> <li>- Jasper Hall</li> <li>- FMMR road network</li> </ul>
Association 1 out of 5	No retention of the period's military character of training local reserve soldiers due to the demolition of all their training and living areas on the installation	<ul style="list-style-type: none"> <li>- None</li> </ul>

\*Each of these aspects were ranked on a scale from 1 to 5: with a ranking of 1 for resources with no retention of period's integrity and a 5 for a period's resources that have a high level of integrity.

#### Integrity of the 4<sup>th</sup> Period of Significance Remaining Resources

FMMR's last period of military significance spanned some of the nation's most important events in the twentieth century, from the 1930s New Deal programs, to mobilization for and participation in the Second World War, to the beginning of the Cold War. Similar to the rapid growth of the military during the century's previous World War, FMMR's development accelerated during this fast-moving period with large increases in garrison size and the scope of the military missions they were required to execute. As a result of changing military requirements, most of the features constructed during this period were designed only for temporary use. These quick and cheaply constructed mobilization areas were some of the first to be demolished after the war and their removal enabled the landscape's conversion into residential lots. Other improvements, however, completed during this period - such as FMMR's coastal defense fortifications, transportation network, and other post infrastructure - were constructed of more permanent materials that have allowed them to remain visible on the landscape today. The majority of these World War II era permanent features have retained some integrity when evaluated for design, setting, feeling and association as seen in Figure 5.11. Overall, this period of significance including the last thirteen years of FMMR's service ranks second in its ability to identify its historic importance even though Sullivan's Island military landscape has been drastically converted into a new private residential community.

Figure 5.11: 4th Period of Significance: 1934-1947 Evaluation of Aspects of Integrity

Aspects of Integrity rating*	Evaluation of FMMR Existing Status	FMMR Remaining Contributing Resources
Design 2 out of 5	Limited period resources like the Marshall Reservation's fortifications and the NPS maintained HECP/HDCP and Battery 230 conserve their spatial relationship. But, the majority of the Second World War temporary building campaigns were quickly salvaged and replaced with new civilian lots in the 1950s.	<ul style="list-style-type: none"> <li>- Battery 520 complex</li> <li>- Panama mounts</li> <li>- HECP/HDCP</li> <li>- Battery 230</li> <li>- 90mm positions on top of Battery Jasper</li> </ul>
Setting 2 out of 5	Little connections between this period's surroundings when evaluated with today's residential community. Remaining period fortifications and transportation improvements assist in establishing the character of the place. But the majority of the features have been removed and replaced with modern construction and intrusive vegetation.	<ul style="list-style-type: none"> <li>- World War II fortifications</li> <li>- Ben Sawyer bridge</li> <li>- Coast Guard/ QM docks</li> <li>- FMMR paved road network</li> <li>- FMMR mature plantings</li> </ul>
Feeling 3 out of 5	The combination of remaining resources from this period provides FMMR its best sense of feeling. Most of the period's fortifications still remain visible on the landscape along with other important military areas that have retained enough to convey the period's significance	<ul style="list-style-type: none"> <li>- World War II fortifications</li> <li>- CCC camp foundations</li> <li>- Recreational area layout</li> <li>- Quartermaster support area</li> <li>- FMMR entrance gates</li> <li>- Post church</li> </ul>
Association 2 out of 5	Limited retention of the period's evolving military character from CCC training, to mobilization of CA units before and during the war, and FMMR's personnel support missions towards the end of its history.	<ul style="list-style-type: none"> <li>- World War II fortifications</li> <li>- CCC camp foundations</li> <li>- Recreational area layout</li> </ul>

\*Each of these aspects was ranked on a scale from 1 to 5: with a ranking of 1 for resources with no retention of period's integrity and a 5 for a period's resources that have a high level of integrity.

### Overall Statement of Integrity for FMMR Remaining Resources

For each of FMMR's four periods of significance some general observations can be made about the overall importance of its existing conditions. First, the Town of Sullivan's Island decision in 1950 to convert the majority of the military landscape into individual private residential lots has caused significant alterations that make it difficult for the site as a whole to retain its military identity. As a result of this subdividing of the landscape, the majority of resources that have survived were because of their permanent construction or the ease of adapting them into new civilian uses. Of these remaining resources, most of them are still in their designed military locations, and continue to possess most of their original material and workmanship, helping to associate them as part of a military landscape. Finally, the integrity of FMMR's remaining resources exhibit smaller degrees of design, setting, feeling, and association because of civilian changes as the island continues to develop.

Overall, the scattering of FMMR's existing resources among modern residential construction across Sullivan's Island makes it difficult to identify the U.S. Army's installation as an entire historic district that successfully conveys the sense of a military environment. Instead, individual FMMR landscape features do remain visible and have been highlighted in each of this chapter's individual evaluations of integrity, defining both why they are significant and to what period they were significant. Figure 5.12 and 5.13 identifies these specific features, many of which have not been recognized or documented on before this thesis. Highlighted in these maps, the combination of FMMR landscape features of spatial layout, physical setting, transportation, and utilities are the



core remaining elements, instead of the better known military structures, that still express the setting and a greater sense of FMMR's place in the island's history. Currently, these remaining features are being lost or ignored in the island's constant fight with additional civilian development. This thesis's last chapter will identify numerous recommendations for the Sullivan's Island community to recognize and protect them in the future.

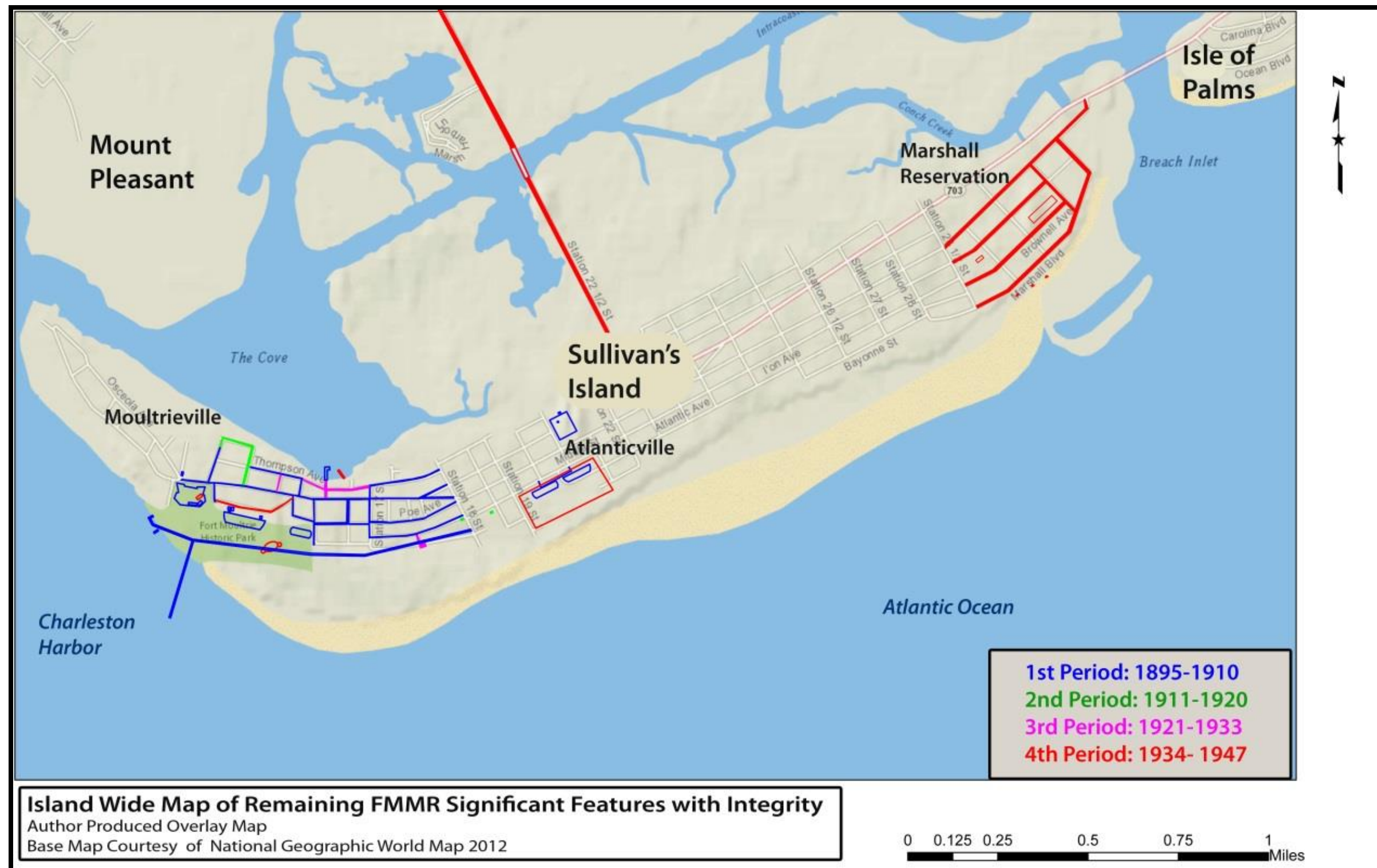


Figure 5.12: Sullivan's Island Map showing the location of remaining FMMR Significant Features that retained enough integrity to the represent their periods of significance. Source: author produced GIS/Photoshop basemap.



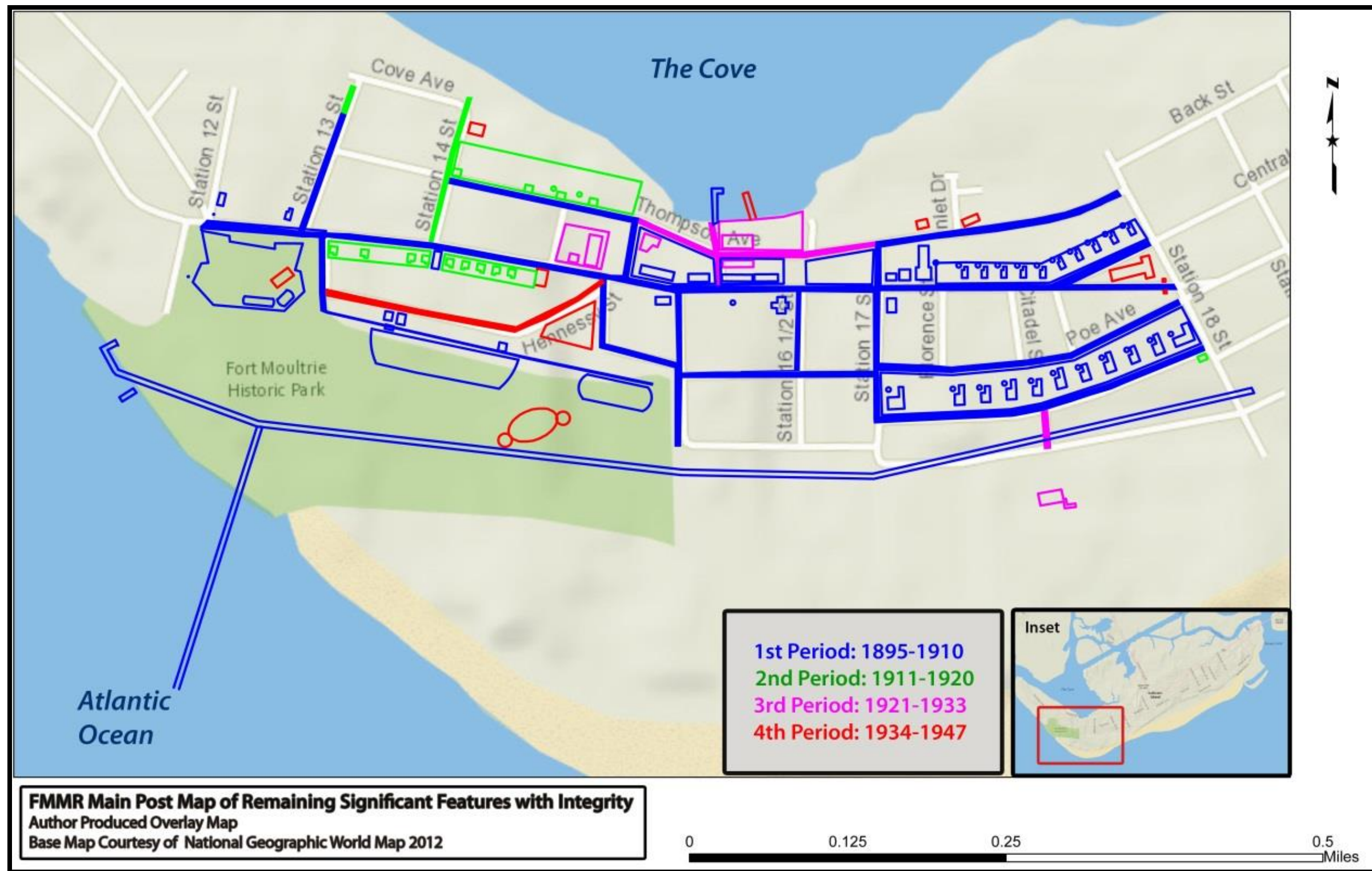


Figure 5.13: FMMR Main Post Map showing the location of remaining FMMR Significant Features that retained enough integrity to the represent their periods of significance.  
 Source: author produced GIS/Photoshop basemap

## CHAPTER SIX

### TREATMENT RECOMMENDATIONS

The final step in the examination of FMMR historic landscape is to identify the best treatment approaches for its remaining resources and to provide recommendations to the Sullivan's Island community that will assist them with protecting their disappearing military heritage. This treatment plan is based on the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, which outlines four different approaches- preservation, rehabilitation, restoration, reconstruction, as defined in Table #1. When these standards are used to evaluate the current features of FMMR's existing conditions, the installation's periods of significance and remaining integrity, and with the community's current residential environment, only two approaches, preservation and rehabilitation, are feasible for the Town of Sullivan's Island and its residents. The other two approaches- restoring or reconstruction - would require excessive supervision, funding and regular required maintenance that would significantly change the island's residential character into a coastal defense historic park. Instead, by applying six treatment recommendations based on the *Secretary of the Interior's* preservation and rehabilitation approaches outlined below, Sullivan's Island can leverage its unique historic military character to support accomplishment of its principle residential planning goals.<sup>218</sup> In essence, my treatment plan follows two main goals: first to recognize

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<sup>218</sup> Birnbaum. *Protecting Cultural Landscapes: Planning, Treatment, and Management of Historic Landscapes: Preservation Brief #36*; *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Washington, D.C: National Park Service, 1992)



FMMR remaining existing features and then to emphasize how these treatments reinforce the *Town of Sullivan's Island 2008 Comprehensive Plan*, which seeks to:

- protect its special sense of place;
- guard its residential character;
- preserve the island's way of life; and
- recognize its history.<sup>219</sup>

Figure 6.1: *Secretary of the Interior's Standards for the Treatment of Historic Properties*

Treatment Approaches	Definition
Preservation	- the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property
Rehabilitation	- the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.
Restoration	- the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.
Reconstruction	- the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

Birnbaum, Charles. *Protecting Cultural Landscapes: Planning, Treatment, and Management of Historic Landscapes: Preservation Brief #36*. Washington, D.C.: National Park Service, 1994.

FMMR's civilian redevelopment over the past sixty-five years has resulted in most military resources being privately owned. The large number of private owners, many of whom might not accept restrictions of their property rights to preserve the island's military features, makes it difficult to propose broad treatment recommendations that would protect all of FMMR remaining resources. As a result of civilian ownership and with no local government funding for purchasing privately owned resources,

<sup>219</sup>Town of Sullivan Island *Sullivan Island Comprehensive Plan*, 2008 1-2.

FMMR's preservation and rehabilitation recommendations are necessarily focused on a select number of Town-owned or right-of-way properties that can create a more cohesive understanding of the historic military landscape. Because of this town-owned focus, all of these recommendations must follow the town's most recent Comprehensive Plan, which is used by the local community to identify their current resources, define the next ten years' needs and goals, and to develop implementation strategies to achieve these needs and goals.<sup>220</sup> A key part of this planning review is the protection of island's cultural resources by identifying, recognizing, and protecting FMMR's resources, especially the island's remaining batteries. Other key factors identified in the planning document are to improve upon the island's public open spaces and to promote a sense of community among the residents. All of these planning elements will be included in the following six recommendations that promote how recognition and preservation of a select number of FMMR's remaining features can improve the island's overall residential character.<sup>221</sup>

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<sup>220</sup> Town of Sullivan's Island. *Sullivan's Island Comprehensive Plan* 2008.

<sup>221</sup> Ibid.



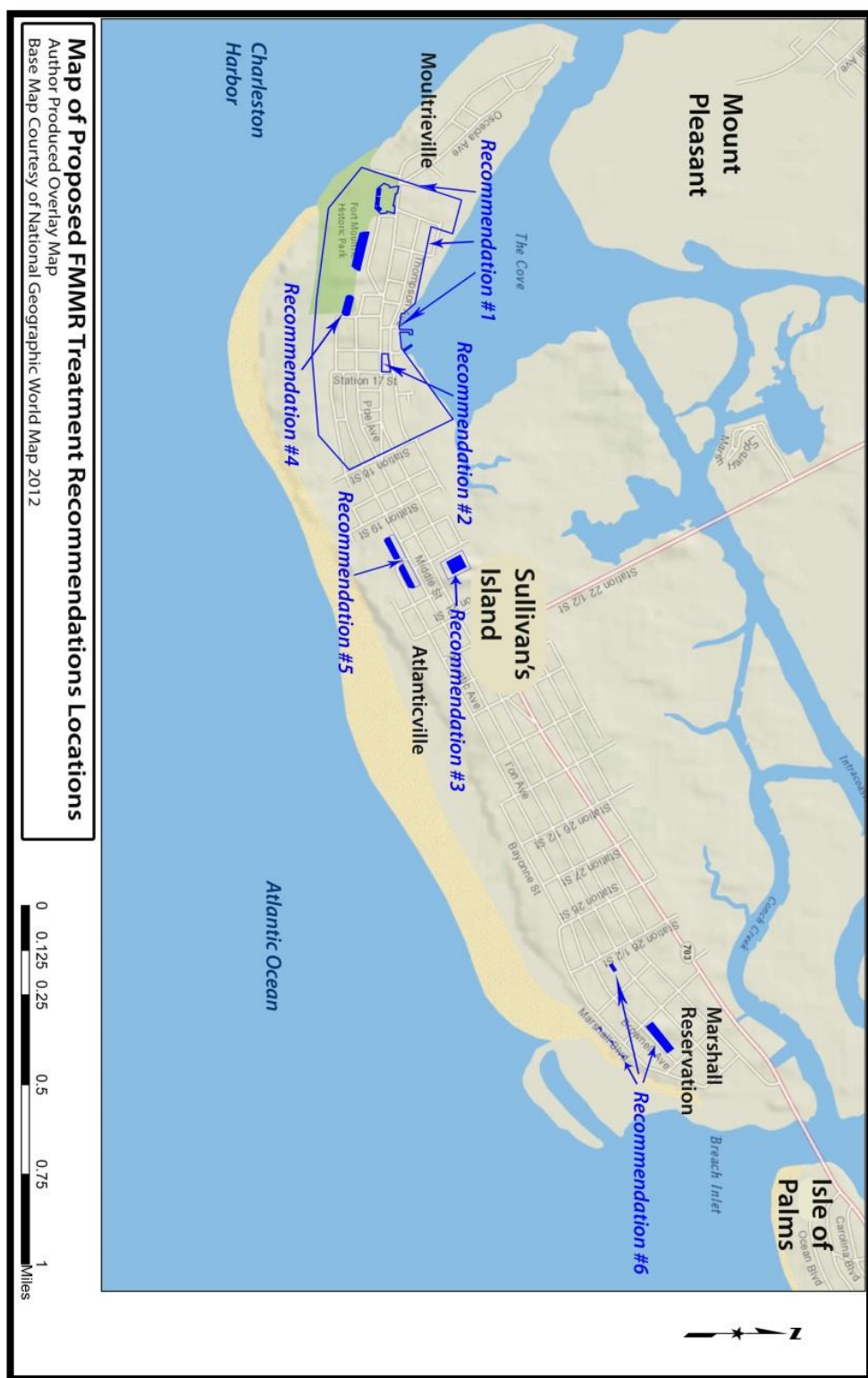


Figure 6.2: Map of Proposed FMMR Treatment Recommendation Locations. Source: author produced GIS/Photoshop basemap.

### Recommendation #1: Establishment of FMMR Historic Overlay District

In 2003, the Town of Sullivan's Island established three local historic districts that were culturally significant to the island's history and needed to be protected through oversight from the town's Design Review Board. Two of these districts, Moultrieville and Sullivan's Island Historic District, included areas of FMMR's core installation but were mainly composed of a wide variety of civilian residential architecture found outside the reservation's boundaries. The failure to create a single, unified district that recognizes FMMR's main footprint has resulted in the compartmentalizing of its military landscape into smaller pieces. The first recommendation is to combine these pieces of the military's landscape together in a new Sullivan's Island Historic District called the Fort Moultrie Military Reservation Overlay District. The boundaries of this new district would follow the U.S. Army's footprint, highlighting the historic significance of the island's unique early twentieth century military planned community. Remaining historic resources highlighted earlier in Chapter 4: Existing Conditions would be identified as key contributing features for the district and fall under the oversight of the Town of Sullivan's Island Design Review Board. While a majority of these identified resources are already receiving this level of protection, FMMR's other non-structural landscape elements that are key to recognizing its planned military landscape, do not. By incorporating all of FMMR's remaining features in this new district, residents will begin to see how the U.S. Army's roads, sidewalks, docks, seawalls, plantings, and designed open spaces have contributed to the island's present-day landscape.

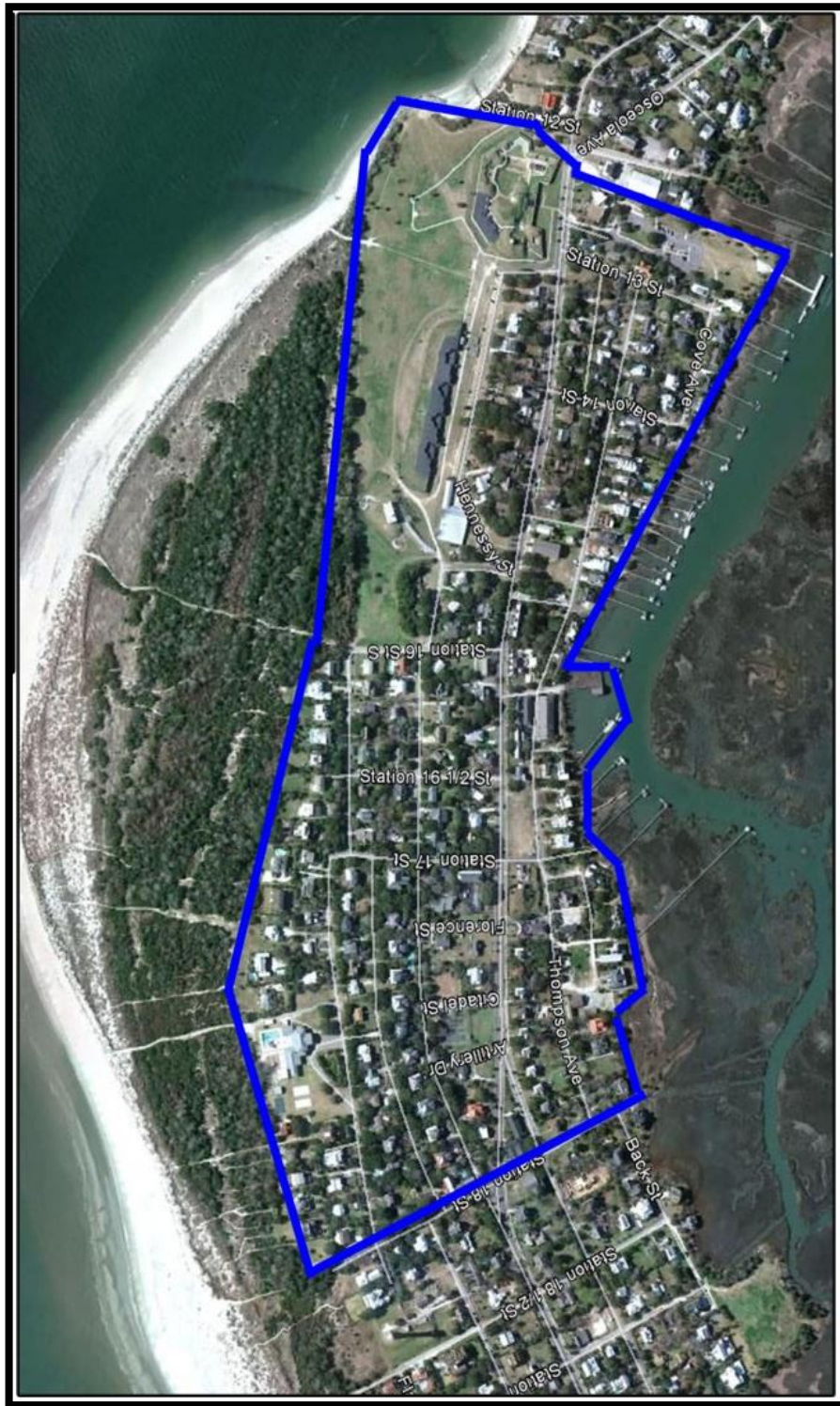
In addition to creating this new historic district ordinance, the Town of Sullivan's Island should examine the inclusion of an archeological element that would document and preserve underground cultural resources found in the new historic district footprint. While a majority of this area's cultural resources would include historical remnants from the U.S. Army's site ownership, other prehistory or post-European colonization resources might be discovered that could help to contribute to our understanding of the island's entire history, as described in Criterion D of the National Register of Historic Places. This additional element would illustrate Sullivan's Island dedication to preserving its entire heritage by enacting the local area's first archaeological ordinance dedicated to identifying and documenting underground cultural resources once discovered. At the same time, this new archaeological ordinance does not have to be a preventative or oppressive control that would deny individual resident's rights to develop their property, once they have gaining normal approval from the Town's Design Review Board to do so.

At this preliminary review, the town staff could notify property owners of possible archaeological resources that they might come across from their own knowledge and the town's past historic resource surveys. But, once resources have been accidentally uncovered during construction, this ordinance would require notification to the town government who would be required to evaluate the find. If the site is found to be historic, the Town would be responsible for providing the funding and coordinate with local experts to document and excavate the resources, while the property owner is allowed to continue construction at other non-historic areas of the site. To mitigate this cost to the town government, a list of local archaeology-trained volunteers could be maintained, so

that they could be called upon to investigate, document, and excavate anything found on an individual construction site. Finally, the town would also be responsible for coordinating for the curation of recovered artifacts and future public presentations by partnering with local museums and state archaeological repositories. Overall, the inclusion of the archaeological ordinance is the one of the next steps that Sullivan's Island can complete to advance the island's preservation focus; this approach has been very successful in numerous other communities across the United States.<sup>222</sup>

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<sup>222</sup> County of San Diego, CA. "Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources" (Department of Planning and Land Use, Dec. 2007); City of Santa Fe, NM. "Archaeological Review Committee" (City of Santa Fe Land Development Ordinance. 2007.) City of St. Augustine, FL. "Archaeology Ordinance" 1987.



**Figure 6.3: Map of Proposed Boundaries for the FMMR Historic Overlay District.** Source: author produced GIS/Photoshop basemap. See additional section views of proposed streetscape in Appendix D, page 378.

A difficulty in establishing the overlay's boundaries is the large amount of homes built in the sixty-five years since FMMR's decommissioning. While these new residences would be listed as non-contributing resources in the FMMR's Historic Overlay District, their sense of place on this portion of the island is based on the U.S. Army's post layout and road network. Used in determining the design of new residential lots in the 1950s, the layout and road network are examples of the remaining integrity of FMMR's City Beautiful inspired landscape, which contributes to the feeling binding this district of historic and modern elements into a more cohesive identity. After validating FMMR's historic importance to the community with its own historic overlay district, the Town of Sullivan's Island can carefully reinforce this area's military significance with designed streetscape methods. By incorporating new or replacement civic improvements with historic FMMR's examples in the district, the Town of Sullivan Island can create a palate of streetscape features from sidewalk width and composition, to standardized streetlights or appropriate street markers to further reinforce the area's military significance. The creation of the FMMR Historic Overlay District would make the district a desirable residential area that would use both preservation and rehabilitation approaches to help retain the island's unique sense of place that makes it different from other coastal islands in the vicinity of Charleston.

Recommendation #2: Rehabilitation of Remaining FMMR Parade Ground into a Memorial Park to increase Public Open Spaces

The three Town-owned and cleared lots to the east of the private residence at 1620 Middle Street is all that remains of FMMR's Parade field, once the center of the Endicott period design of the military reservation. One of the key defining characteristics of a military landscape, this open area held daily garrison parades and the raising and lowering the garrison's flag, and it was used as an open space for unit training and for soldiers' recreational purposes throughout fifty-two years of military service. Converting the remaining 30,000 square foot section into an open space civic park is the second recommendation proposed to enhance FMMR's historic memory. The rehabilitation of FMMR's parade ground will provide a central focus for FMMR's Historic Overlay District and create a community specific recreational space tied to the area's past. As with most municipalities, there is a tendency to build on undesignated open space, as seen recently with the Town of Sullivan's Island current deliberation on possibly locating its new City Hall on a significant section of the town's existing park.<sup>223</sup> This recommendation will rescue one of FMMR's few remaining open areas that helped to define its military designed landscape by establishing the parade ground as a public park instead of becoming three more lots for modern residential development.

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<sup>223</sup> Susan Middaugh. "Progress on a New Sullivan's Island Town Hall" *The Island Eye News* December 3, 2012. Hannah Dockery. "The Search for a New Home" *The Island Eye News* September 21, 2012.





Figure 6.4: Concept design of Proposed Layout for FMMR Parade Ground Memorial Park. Source: author produced GIS/Photoshop basemap. See additional section view in Appendix D, page 379.

In order to enrich this former military landmark's importance, certain improvements need to be added to this open area to better represent its historic significance. First, the Town of Sullivan's Island's recent planning decision to construct a new town hall on a portion of the town's park in the Atlanticville commercial district will require relocation of the FMMR's bandstand. By returning the FMMR bandstand to its original location on the reservation's parade ground, it could provide a key element of the parade field's park design. Second, this section of the FMMR parade ground once held FMMR garrison's flagstaff. By reconstructing a flagstaff, the new parade ground park would respect its original purposes and could become the home for existing memorials that are scattered throughout threatened locations around the island. Likely candidates include the granite Fort Moultrie memorial outside the old City Town Hall at 1610 Middle Street or the island's granite First and Second World Wars monument dedicated to the town's veterans located at the intersection of Osceola Avenue and Middle Street. Additional new memorials, historic interpretative signage, and limited native shrubs or ground vegetation could be included in the park's final design, but the majority of the space would retain its open, cleared space of FMMR's original parade field. The park's straightforward design would involve mostly open grass with limited perimeter trees to make it a true recollection of the military's original design and fit the basics of modern park design. The rehabilitative approach to protecting the significance of this key feature in FMMR's military design would assist in identifying the area as a military landscape. Such a park would enhance its current residential desirability to the area's residents more than the construction of three more modern residential structures.

Recommendation #3: Rehabilitation of “the Mound”- Battery Capron and Butler into a scenic overlook adjacent to the town’s newly renovated park

In 1992, the Town of Sullivan’s Island hired Richard Marks Restorations and Glenn Keys Architects to conduct an assessment of the possibility of future development of the Town owned FMMR batteries. One of these, the oldest Endicott period fortification - Battery Capron and Butler - was deemed a danger to public safety because of its forty-foot deep mortar pits, which were then covered with fill to create a hilltop that has since been known as “the Mound.” Over the past twenty years, the site has become overgrown with vegetation including a destructive stand of non-native bamboo that is quickly spreading over the east side of the hill. The 1992 Assessment called for the development of the batteries’ now overgrown hilltop into a scenic overlook with picnic tables and telescopes to view the entire length of the island. Because of budget constraints, this recommendation was not completed and has resulted in the derelict appearance of this important part of FMMR’s military landscape.<sup>224</sup>

The third recommendation is the completion of the 1992 Assessment’s plan for converting Battery Capron and Butler’s hilltop into a scenic overlook that would showcase the entire island’s historic development, not just FMMR’s military presence. The highest point of elevation on the island, except for the currently non-accessible Sullivan’s Island lighthouse, “the Mound” provides a unique opportunity for the Town’s Government to further enhance their recent improvements to the Town Park and the

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<sup>224</sup> Richard Marks Restorations and Glenn Keys Architects. *Sullivan’s Island Fortifications: Assessment of Endicott Batteries: Logan, Thomson, Gadsden, Capron, and Pierce Butler* (Charleston: Town of Sullivan Island, 1992)

future construction of the new Town Hall building. As one of the most popular locations for the island's residents to visit and view their island home for over a century, the development of the hilltop into a scenic overlook area would provide additional open recreation and leisure spaces. Additionally, the close proximity to Sullivan's Island commercial district of popular restaurants and stores would see increased economic benefits from residents and tourists visiting the overlook. To create this valuable resource, some additional development of the site would be required, starting with the trimming of vegetation that prevents a 360-degree view of the island and the removal of non-native plants from the hillside. To reinforce the area's historic environmental conditions, the hillside could be planted with myrtles that would remind visitors that this area of the island used to be known as "The Myrtles."



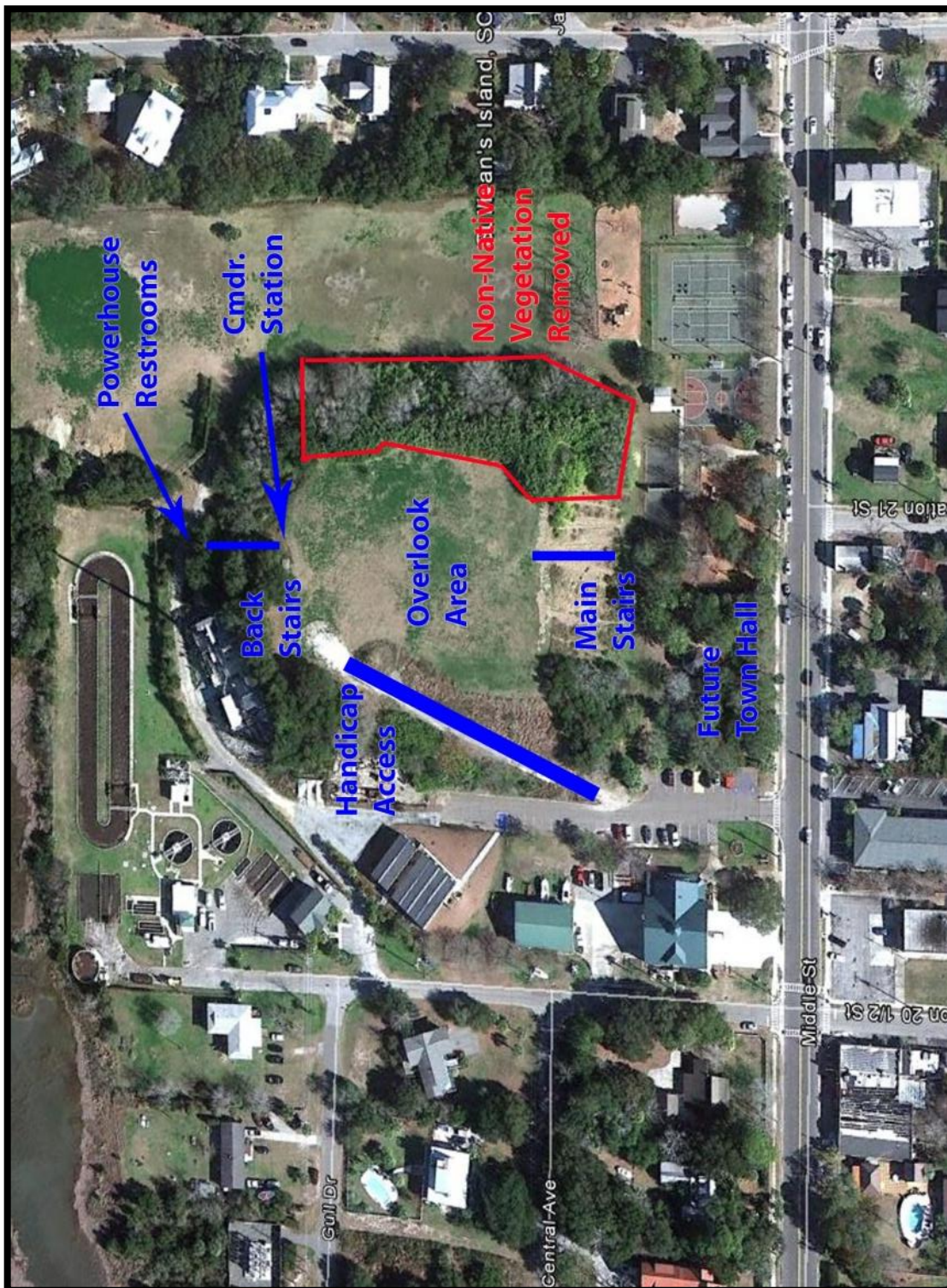


Figure 6.5: Concept design of Proposed Layout for “the Mound” Scenic Overlook. Source: author produced GIS/Photoshop basemap. See additional section views in Appendix D, page 380-382.

Another developmental consideration for this proposed rehabilitated use is the two remaining structures from the Endicott Batteries, the Commander's Station and Powerhouse. Located on the hilltop, Battery Capron and Butler's Commander's Station could be partially restored and converted into a historic display with interpretative signage describing the military and engineering historic significance of the early twentieth century Endicott batteries defending Charleston Harbor. By retaining and showcasing one of the few remaining FMMR's command and control structures, visitors to "the Mound" will understand how this single fortification was a part of the much larger military installation that covered the entire island. The other remaining FMMR structure, the batteries' Powerhouse, is located at the base of the rear or northern face of the hilltop and is the furthest away from residents and visitors that will be entering the site from Middle Street. Its location adjacent to the town park's athletic fields and its overall size, would support the rehabilitation of this abandoned structure into a public restrooms, which is currently unavailable in these recreational and leisure areas. By retaining the structure, it will no longer be a forgotten piece of the military landscape and can be retained as a physical example of the period's military architecture in an appropriate and needed adaptive reuse.

In addition to recognizing the military's significance of "the Mound", this scenic overlook could be used as an open recreational space with benches and picnic tables for island residents and visitors. Furthermore, additional interpretative signage around the exterior of the hilltop would identify key areas of the island and the historic events that have occurred at these locations over the island's history. A partnership with the

National Park Service in interpreting the landscape would be beneficial to the Park Service by providing increased publicity of their sites, at the same time that the town received assistance in producing appropriate and weather resistant wayside exhibits and recreational furniture. Overall, the completion of the 1992 Assessment's recommendation to make Battery Capron and Butler's hillside into a scenic overlook would become one of the island's signature open spaces, cherished by the island's residents and very effective in visually explaining both FMMR and Sullivan's Island history.



Recommendation #4: National Register Nomination for Battery Logan and examination of its possible rehabilitation into a new public use.

Another of the town-owned fortifications examined during the 1992 Assessment, Battery Logan was the only one not completed by the Town of Sullivan's Island in its proposed adaptive reuse and as a result has become overgrown by vegetation. The battery's abandoned condition has furthered accelerated the one hundred year old fortification's serious material deterioration because of water infiltration and other environmental impacts. Originally, part of the National Park Service property when neighboring Battery Jasper and Battery 230 were acquired in the 1960s, Battery Logan was given to the Town of Sullivan's Island in the 1980s after the National Park Service had placed a conservation easement on the battery and the land in front of it. The easement was placed to provide protection from residential redevelopment of one of FMMR's fortifications in sight of the National Park Service's Fort Moultrie. But, as a result of this easement, the battery has been neglected to the point where it has almost been consumed by vegetation. The fourth recommendation proposed to further distinguish FMMR's remaining historic resources is the formal recognition of Battery Logan's historic significance and develop new rehabilitation uses that would be appropriate for this area of the island.

The first priority of this recommendation is to complete a National Register of Historic Places nomination for Battery Logan. Because of its complicated history of ownership between the National Park Service and the Town of Sullivan's Island over the past sixty-five years, it has been overlooked for this national recognition. Even the

island's 1987 and 2003 historic resource surveys made the mistake of assuming this remaining resource was included in the National Park Service's 1966 National Register Nomination for Fort Sumter which entails all of its contributing resources at Fort Moultrie. As the only remaining FMMR Endicott period fortification not listed on the Register, it is important to recognize Battery Logan's historic role. In addition to the battery's long service, it is the only battery on Sullivan's Island that is named after a Medal of Honor Recipient, Major John A. Logan, who was mortally wounded leading his battalion in combat at San Jacinto, Philippines on November 11, 1899. Rehabilitation of the battery named after a Medal of Honor Recipient would be of interest and possible support from the nearby Medal of Honor Museum located aboard the *USS Yorktown* at Patriot Point, Mount Pleasant, South Carolina.

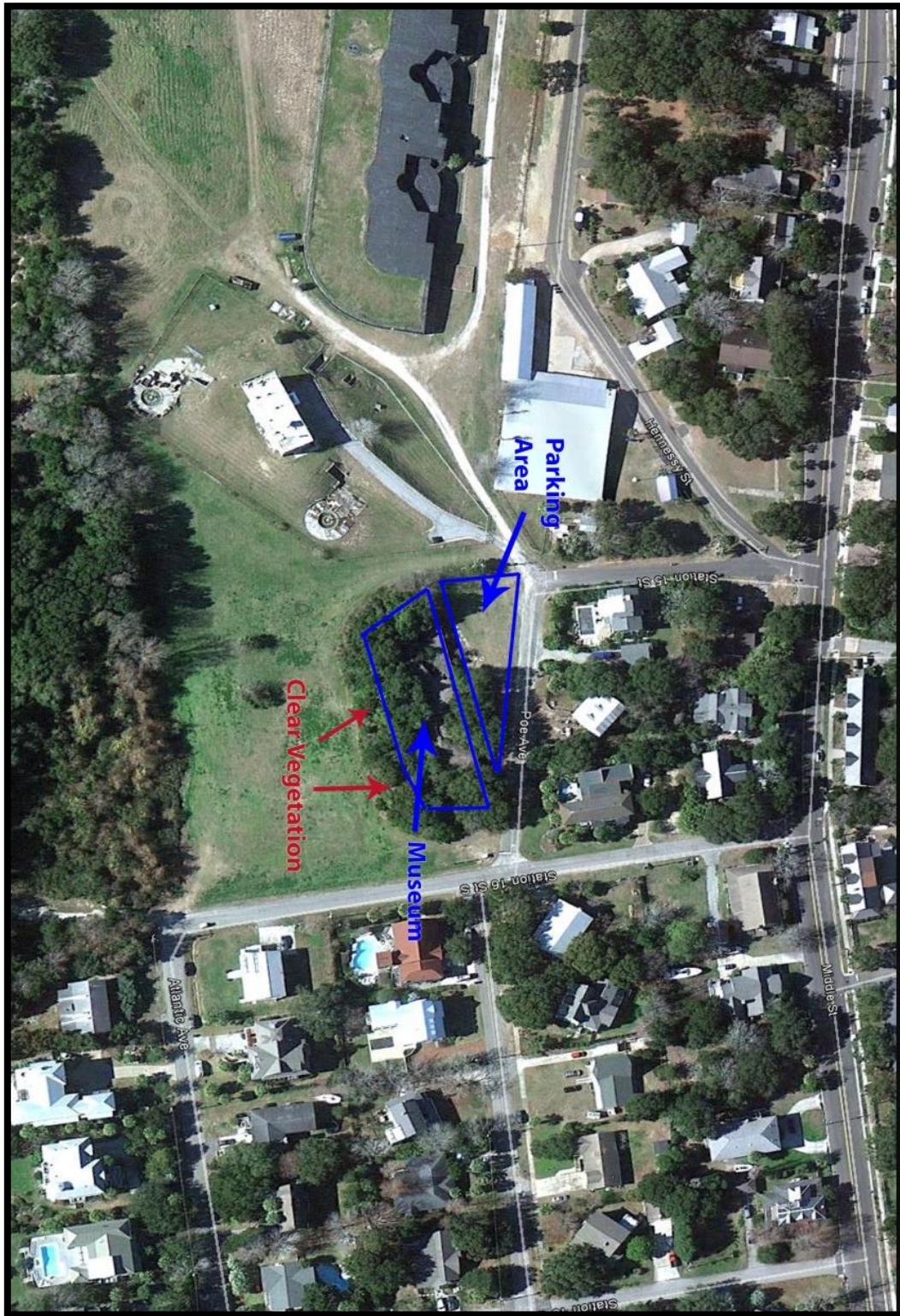


Figure 6.6: Concept design of Possible Layout for Battery Logan into Sullivan Island Museum.  
Source: author produced GIS/Photoshop basemap.

After completing the National Register nomination to bring additional attention to this significant military feature of FMMR, the next step would be a closer examination of the National Park Service's conservation easement to determine if any possible types of adaptive reuse could assist in preserving this resource for the future. If a reuse under the easement is not possible, the Town of Sullivan's Island should work with the NPS employees of Ft. Sumter National Historic Landmark to remove the easement and develop a new use that would be mutually beneficial for both the Park Service and the Town of Sullivan's Island. If both of these groups came together to agree that the property will soon lose its historic integrity because of its continued neglect, then they could submit requests via their local Congressmen to the Secretary of the Interior to remove the easement so the property could be rescued.

If the easement is removed, a possible adaptive reuse idea that would be beneficial for both groups is the conversion of the battery's interior spaces into a small local museum that could be operated by a new non-profit organization -- something like a Sullivan's Island Historical Society. This small local preservation group's membership could begin with the historically concerned island residents and a small professional staff recruited from the local preservation community to run the day-to-day operations. This organization would become the chief advocacy group for protecting all of Sullivan's Island resources not just FMMR remaining military features and would be responsible for partnering with the Town of Sullivan's Island to recognize the island's diverse history. This partnership could begin with the Sullivan's Island Historical Society's leasing the battery for a small fee and rehabilitating the overgrown battery into a museum and office

space with minimal changes to the battery's exterior. Also, by locating the organization's new museum next to an established National Park Service historic site with thousands of annual visitors, it can be expected that a sizeable percentage of these guests would stop at the local museum to learn more about the island's entire history. These overflow effects, along with other fundraising efforts will possibly generate enough profits to keep the museum open and the organization financially supported. In any case, this thought is worth a feasibility study. By finding a new adaptive reuse of Battery Logan and including it as a key feature in the Fort Moultrie Military Reservation Overlay District, this recommendation will further enhance the island's military heritage by recognizing and protecting one of its key fortifications that is currently endangered.

Recommendation #5: Stabilization work around Battery Gadsden's CCC Camp emphasizing it as public open space and for its local and state historic significance.

Over its history, FMMR was required to support numerous missions besides its original intended purpose of protecting Charleston harbor. Each of these additional missions significantly impacted the development of FMMR's landscape over its history, mostly because of the different campaigns of temporary facilities used to support these missions. After FMMR's decommissioning, the majority of these training sites were quickly cleared to make room for new residential construction. The only example of a FMMR's remaining resource that identifies this important part of the reservation's military career is the Civilian Conservation Corps' (CCC) camp foundations that remain in the vicinity of Battery Gadsden. These remnants of the CCC's South Carolina headquarters and supply company area possesses significance because of its leadership and support to all the state's CCC camps and in turn their impacts on the completed projects that improved the state's recreation, transportation, and infrastructure assets. Over the past few decades, the CCC camp area has been included in the cultural center rehabilitation approach used at Battery Gadsden. But limited funding has resulted in little to protect the camp's remaining concrete foundations from erosion and vegetation impacts that are degrading the remains of this historically significant resource. The fifth recommendation is the cleanup and stabilization of Battery Gadsden's CCC camp in order to enhance this public open space while also protecting its irreplaceable historic resources.

The priority of this recommendation is to clear destructive ground vegetation and debris from the area to ensure that all of the CCC camp's remaining features are identified and documented. If funding is not available for the completion of the remainder of this recommendation, then the documentation of the current conditions of FMMR's CCC's camp is critically important since at its current rate of decay, significant portions of this important resource will be lost in the near future. If, after the documentation of CCC's camp existing conditions, additional funding becomes available, then a conservation plan should be completed to determine the best course of action for preserving the camp's remaining concrete foundations. After mitigating the deterioration of the camp's remaining architectural elements, additional interpretative signs can be added to describe its CCC's history and the layout of the camp. A partnership with the South Carolina State Parks Service could also be beneficial, as it has a direct historic link to the state's CCC program, and has developed an interpretive program at many of their other parks to explain this relationship. After completing the documentation and stabilization of the CCC's camp historic features, the area could be rehabilitated into a new public open space with a few alterations that would support the island's nearby commercial and residential areas. By completing the proposed recommendation, the Town of Sullivan's Island can further recognize the historic importance of this area that has been increasingly under redevelopment pressures including the recent battle over the rebuilding of the new Sullivan's Island Elementary School<sup>225</sup>.

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<sup>225</sup> Brian Hicks. "School politics paralyze Sullivan's Island" *Charleston Post and Courier* September 9, 2012; Diette Casey. "Construction work to proceed on new Sullivan's Island elementary school, despite lawsuit" *Charleston Post and Courier* October 23, 2012.



Recommendation #6: Protecting and Recognizing FMMR outlying areas' remaining significant resources, especially on the Marshall Reservation.

Spanning different areas along the entire length of Sullivan's Island, certain remaining FMMR resources are unable to be included in the new FMMR Historic Overlay District but are key to understanding the scope of the island's military landscape. The final recommendation is for the Town of Sullivan's Island to continue to assist private property owners in preserving these significant outlying parts of the military landscape for the future. An example location for how this recommendation could be accomplished is the island's northern end, where remnants of FMMR's Marshall Reservation still exist: Battery 520 and the Panama mounts along the beach. While both of these fortifications have been identified as Sullivan's Island historical features in the Town's 1987 and 2003 Historic Sites Survey, they have not been added to the National Register of Historic Places because of private owner concerns about what this level of recognition would mean for their properties' value.

To bring some attention to the historic military importance of the Marshall Reservation and other non-protected FMMR resources across the island, the Town should facilitate periodic educational events for its residents to learn the benefits of being listed on the National Register and other preservation methods like property easements or rehabilitation tax credits. These local events could build partnerships that use instructors and subject matter experts from the area's robust historic preservation community, from local organizations like the Historic Charleston Foundation and the Preservation Society of Charleston to the State Historic Preservation Office and the Charleston regional office

of the National Trust for Historic Preservation. These professionals could assist the Town of Sullivan's Island staff with providing beneficial information to its residents and could establish relationships that might result in possible future financial support for the island's continued preservation efforts. An approach for the Town of Sullivan's Island to consider in bringing publicity to FMMR's outlying areas, like the Marshall Reservation, is to host a preservation workshop at Station 29 beach, where a group of experts and any concerned citizens could discuss the best approaches for recognizing and conserving the one remaining town-owned Panama mount that is under constant attack from beach erosion. Overall, this final preservation approach recommendation is intended to strengthen the community's knowledge of how best to preserve all the island's historic sites, no matter their location or if they are publicly or privately owned. By establishing a preservation-knowledgeable public, the Town of Sullivan's Island will find it easier in the future to protect the island's special sense of place and its residential character.

## Conclusions

After applying the combined methodologies of the National Park Service and the U.S. Army's Environmental Command to evaluate the unique set of elements that comprise FMMR's military landscape, this thesis has identified several recommendations intended to assist in preserving a disappearing part of the island's history. First, by documenting FMMR military history over its four main developmental periods, this thesis has illustrated the military's connection to the island's development during the first half of the twentieth century. Next, by identifying how the military landscape has been transformed into various new adaptive reuses over sixty-five years of civilian redevelopment, the historic significance and remaining integrity of FMMR resources was evaluated. In the end, while all of FMMR's periods of significance retained some limited integrity that could be utilized in the retelling of the military's history on the island, the initial Endicott Period and its last years before and during the Second World War retained the most significant resources, resulting in the majority of the recommendations focusing on these two periods.

The proposed six treatment recommendations are intended to initiate and inform public discussions about the best way to recognize and preserve the island's military past. If a majority of the island's residents are supportive of all or any of these individual recommendations, then the Town of Sullivan's Island government staff can begin to plan and execute these improvements as funds and manpower becomes available. The formation of a non-profit preservation advocacy organization, the Sullivan's Island Historical Society, could support the Town of Sullivan's Island in completing these

recommendations and future preservation efforts. Recognized as the island's preservation voice, this organization in the future could partner with other local Charleston preservation groups, to bring more attention to threatened island's resources. Also, this organization can begin to build supportive relationships with local military organizations, which have an interest in recognizing the island's significant military landscape because of their own connections with its history, like the South Carolina National Guard and the Citadel. Additionally, the Sullivan's Island Historical Society could be responsible for applying to the South Carolina State Historic Preservation Office for grants that would help fund these historic preservation recommendations and any future archaeological excavations that might be required. With the small size of the Town of Sullivan's Island government and with their existing civic responsibilities, the formation of this local citizen organization would greatly assist them in supervising these recommendations. The Sullivan's Island Historical Society would be the constant force that would ensure that these recommendations are not forgotten, by continuously monitoring the preservation status of the island's historic resources. Periodic comprehensive reviews could occur on the same timeline as the five-year review of the Town of Sullivan's Island Comprehensive Plan, allowing the Preservation Society to promote its successes, while also being involved in future planning decisions.

Overall, these recommendations are intended to combine FMMRs scattered miscellaneous features into a more cohesive group that the community would recognize as key parts of the island's future landscape and be proud to showcase. If these recommendations are completed, they will positively impact not only the island's sense

of place, but can be used as an example to the nation's other communities of how best to examine and preserve the significance of their unique century-old coastal defenses. If the national, state and local historic significance of FMMR's remaining features are recognized and protected, they will continue their silent defense over Charleston's harbor for the next one hundred years.

Figure 6.7: Summary of Recommendations for Preservation/Rehabilitation of FMMR Features.

Recommendation #	Summary
1: Create FMMR Historic Overlay District	<ul style="list-style-type: none"> <li>- Recognize and protect the entire scope of FMMR landscape</li> <li>- Create a District Archaeological Ordinance to identify and preserve underground cultural resources</li> <li>- Create a designed streetscape with FMMR historic details</li> </ul>
2: Convert FMMR Parade Ground into Town's Memorial Park	<ul style="list-style-type: none"> <li>- Move Bandstand back to historic military location</li> <li>- Move town owned memorials to one central location</li> <li>- Build a memorial park with flagstaff, interpretative signs, and limited landscaping to remember</li> </ul>
3: Convert "the Mound" into public scenic overlook	<ul style="list-style-type: none"> <li>- Remove non-native aggressive vegetation</li> <li>- Rehabilitate two FMMR structures into new uses</li> <li>- Convert unused space into the island's signature open space</li> </ul>
4: Recognize Battery Logan and rehabilitate into new use	<ul style="list-style-type: none"> <li>- Complete National Register Nomination</li> <li>- Develop new use as a museum or other public space</li> </ul>
5: Stabilize Battery Gadsden CCC camp features for use as public open space	<ul style="list-style-type: none"> <li>- Complete conservation plan for CCC foundations</li> <li>- Add interpretation signs, park furniture and landscaping to create a welcoming park adjacent to town's cultural center</li> </ul>
6: Protect and recognize FMMR outlying areas' especially Marshall Reservation resources	<ul style="list-style-type: none"> <li>- Conduct a preservation workshop to get ideas about protecting the Marshall Reservation's Panama mount</li> <li>- Educate and support individual island resident's efforts to recognize and protect their historic island resources</li> </ul>

## APPENDICES

## Appendix A: Letter to the Residents of Sullivan's Island

### GRADUATE PROGRAM IN HISTORIC PRESERVATION

292 Meeting Street, Charleston, South Carolina 29401 | tel 843.937.9596 | fax 843.937.9613 | www.clemson.edu

The Residents of Sullivan's Island  
Town of Sullivan's Island Government  
2050-B Middle Street  
Sullivan's Island, SC 29482

Date: April 26, 2013

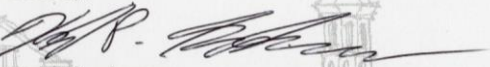
Dear Residents of Sullivan's Island:

*Remembering the Legacy of Coastal Defense*, is my graduate level thesis dedicated to understanding the past 120 year history of the Fort Moultrie Military Reservation (FMMR) and how it is being remembered on the island today. It was my intent to bring attention to this overshadowed part of the island's military history that I first became aware of while volunteering with the National Park Service's (NPS) Fort Sumter National Monument Resource Management Division. Over the past two years, my graduate-level study have included a week of scanning over 1,000 pages of U.S. Army's records at the National Archives, countless days examining the National Park Services' documents housed in their local archives at the Fort Moultrie Visitor Center, and investigating numerous other local research depositories to gain a full understand of the island's development. With this understanding, I was able to present the story of FMMR's four major historical periods by using different cultural landscape themes that I then connected to the island's overall twentieth century development.

By comprehending this complex military site in terms of its landscape elements instead of remaining historic military structures, I hope to inform you, the Sullivan's Island residents, of some of the diverse impacts that FMMR has on the island today. To document this importance, this thesis identifies FMMR's remaining ninety features, their current conditions and what protections have been or have not been implemented to safeguard these historic landmarks. I hope that this comprehensive landscape survey helps you to appreciate these military remnants before they are lost.

Finally, this thesis concludes with a limited number of recommendations for Sullivan's Island to strengthen their unique sense of place by protecting FMMR remaining resources for the future. These recommendations are my own and were not proposed by any outside individuals; but solely come from my own military and preservation experiences that were included in the studying of this distinctive U.S. Army designed landscape. It is my hope that these recommendations begin local discussions between residents and government officials about methods of recognizing FMMR significance and any future adaptive reuse plans for FMMR's remaining unprotected resources. Please feel free to contact me at [sondermannk@yahoo.com](mailto:sondermannk@yahoo.com) if you have any questions or wish to discuss any part of this thesis with me in more detail.

Sincerely,



Karl P. Sondermann

Graduate Student, Clemson University & The College of Charleston Masters in Historic Preservation Program  
Charleston, South Carolina

Major, Logistics, U.S. Army  
United States Army Student Detachment

**CLEMSON**  
UNIVERSITY

**COLLEGE of**  
**CHARLESTON**



Appendix B: Glossary of FMMR Military Terms<sup>226</sup>

Barbette Carriage:	The permanent orientation of the carriage, so that the gun remains above the parapet for loading and firing. Barbette carriages are used for guns of 3-inch or greater caliber.
Base-End Stations:	Promoted as part of the 1910s Taft Period of coastal defense improvements, these individual positions used improved technology of range-finding equipment and spotlights to identify the range and direction to enemy targets. Multiple individual positions' data was combined to triangulate the enemy's positions and this information was converted into gun firing information for the individual batteries use. This system was rapidly expanded on during the First World War to protect the country's harbors.
Battery:	One or more guns grouped with the object of concentrating their fire on a single target and of being commanded directly by a single individual, together with the entire structure erected for their emplacement, protection, and service.
Blast Apron:	The portion of the superior slope of a parapet or the interior slope of a gun pit designed to protect the crews against incoming blasts.
Cantonment:	An area of temporary quarters or billets for visiting or mobilizing troops on a permanent military reservation.
Carriage:	The design of a frame that supports a cannon. It includes the parts for giving elevation and direction, for taking up the recoil on discharge, and for returning the piece to the firing position. Two general types: fixed- for guns in a permanent position or mobile: for guns mounted on wheels that can be moved to different locations.
Casemate:	A fortified enclosure where the cannon fires through a port. This also refers to an emplacement surrounded by a reinforced underground or earthen covered concrete structure. These were used for numerous batteries of two 12 and 16-inch barbette guns built or rebuilt during the period 1936-1945.

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<sup>226</sup> Term definitions from author and Mark Berhow. *American Seacoast Defenses: A Reference Guide*, 3<sup>rd</sup> Edition (McLean, VA: Coastal Defense Study Group Press, 2012)

Cove, the	The back bay area between Sullivan's Island and Mount Pleasant that was used as an anchorage for barges and ferries servicing Sullivan's Island.
Disappearing Carriage:	A late 19 <sup>th</sup> century technological advancement in carriage design where the gun is raised above the parapet for firing and recoils under cover for loading by hydraulic power. This mount is used for guns of 6-inch or greater caliber in coastal defense fortifications.
Direct fire:	Is the term used to describe line of sight firing at enemy targets that can be seen. Batteries engage these enemy targets with high velocity firing and with angles of elevation not exceeding 20 degrees.
Grillage:	A web of timbers, often placed in perpendicular layers, used as the foundation of a fort or to prevent erosion. Cypress, palmetto, and cedar are the most popular woods used to form a grillage.
Hutment:	A collection of easily constructed and temporary wood huts used to house American soldiers mobilizing throughout the United States during the Second World War.
Log Raft Mattresses:	A bed of timbers often placed in perpendicular layers that are filled with granite or other stone boulders, and sunk to create harbor jetties. Cypress and palmetto was the most popular wood used to form the mattresses.
Magazine:	The place for storage of powder and shells inside a fort or adjacent to battery locations. The main (or storage) magazine would store the bulk of the powder, and day-use (or service) magazines would be secondary storage depots. Magazines were carefully designed to prevent sparks and to provide a dry atmosphere for the powder and shells.
Mortar Battery:	A group of indirect fire weapons with either a rifled or smooth bore. It usually has a shorter range than a direct fire weapons, but employs a higher angle of fire that can fire over enemy fortification or penetrate thinner top armor of enemy naval vessels.

Minefield:	In naval warfare, an area of water containing mines laid with a pattern to defend a harbor. The garrison, who would detonate them individually to prevent an enemy's ability to enter the protected harbor, would electrically control these mines.
Parapet:	The low wall along the top of the rampart, generally masonry or masonry-revetted earth, which protects the fort's artillery and their crews. It is the highest point of the fort's rampart.
Plunging Fire:	Is the term for high angle fire used by mortar batteries. This technique used projectiles fired at a low velocity and with angles of elevation above 45 degrees.
Rapid Fire Battery	A group of rifled guns provided with opening rear breech mechanism that facilitates the rapid loading, aiming, and firing of each gun. Normally, these smaller calibers batteries use fixed ammunition to sustain their high rate of fire against fast moving enemy torpedo boats or submarines.

Appendix C: Units Assigned to Fort Moultrie Military Reservation 1895-1947

Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
Spring 1897	Initiation of U.S. Army Garrison at FMMR	Battery C, 1 <sup>st</sup> U.S. Artillery Regiment assigned to FMMR	Battery C, 1 <sup>st</sup> US Art. Reg.
Feb 1901	Reorganization of Coastal Artillery units	Battery C, 1 <sup>st</sup> U.S. redesignated 3 <sup>rd</sup> Coastal Artillery Company, U.S. Army Artillery Corp	3 <sup>rd</sup> Coastal Artillery Co.
Oct 1901	Growth of Garrison	Reassignment of the 16 <sup>th</sup> Coastal Artillery Company, U.S. Army Artillery Corp from Ft Fremont, SC	3 <sup>rd</sup> Coastal Artillery Co. 16 <sup>th</sup> Coastal Artillery Co.
Nov 1901	Growth of Garrison	Creation of the 10 <sup>th</sup> Coastal Artillery Company, U.S. Army Artillery Corp at FMMR	3 <sup>rd</sup> Coastal Artillery Co. 10 <sup>th</sup> Coastal Artillery Co. 16 <sup>th</sup> Coastal Artillery Co.
Jan 1903	Shrinking of Garrison	Deployment of the 10 <sup>th</sup> Coastal Artillery Company, U.S. Army Artillery Corp to Manila, Philippines	3 <sup>rd</sup> Coastal Artillery Co. 16 <sup>th</sup> Coastal Artillery Co.
Apr 1903	Growth of Garrison	Reassignment of the 36 <sup>th</sup> Coastal Artillery Company, U.S. Army Artillery Corp from Manila, Philippines	3 <sup>rd</sup> Coastal Artillery Co. 16 <sup>th</sup> Coastal Artillery Co. 36 <sup>th</sup> Coastal Artillery Co.
Aug 1907	Creation of the Coastal Artillery Corps (CAC)	Reorganization created 5 Companies Assigned to FMMR: 3 <sup>rd</sup> , 16 <sup>th</sup> , 36 <sup>th</sup> , and the creation of the 144 <sup>th</sup> & 145 <sup>th</sup> Coastal Artillery Company, U.S. Army CAC	3 <sup>rd</sup> Coastal Artillery Co. 16 <sup>th</sup> Coastal Artillery Co. 36 <sup>th</sup> Coastal Artillery Co. 144 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co.
1909	Shrinking of Garrison	Reassignment of the 36 <sup>th</sup> Coastal Artillery Company to Ft. Dupont, DE	3 <sup>rd</sup> Coastal Artillery Co. 16 <sup>th</sup> Coastal Artillery Co. 144 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co.
1911	Shrinking of Garrison	Reassignment of the 3 <sup>rd</sup> Coastal Artillery Company to Ft. Hamilton, NY	16 <sup>th</sup> Coastal Artillery Co. 144 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co.
1912	Growth of Garrison	Reassignment of the 78 <sup>th</sup> Coastal Artillery Company from Fort Adams, RI to FMMR	16 <sup>th</sup> Coastal Artillery Co. 78 <sup>th</sup> Coastal Artillery Co. 144 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co.
Sept 1914	Shrinking of Garrison	Reassignment of the 144 <sup>th</sup> Coastal Artillery Company to Panama Canal Zone	16 <sup>th</sup> Coastal Artillery Co. 78 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co.

Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
1915	Shrinking of Garrison	Reassignment of the 16 <sup>th</sup> Coastal Artillery Company to Ft. Sherman, Panama	78 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co.
1915	Growth of Garrison	Reassignment of the 170 <sup>th</sup> Coastal Artillery Co. from Fort Morgan, AL to FMMR	78 <sup>th</sup> Coastal Artillery Co. 145 <sup>th</sup> Coastal Artillery Co. 170 <sup>th</sup> Coastal Artillery Co.
July 1916	National Defense Act: Reorganization of CAC	Redesignated 170 <sup>th</sup> CAC into the 1 <sup>st</sup> Co., Ft. Moultrie, 78 <sup>th</sup> CAC into 2 <sup>nd</sup> Co., FMMR, & 145 <sup>th</sup> CAC into 3 <sup>rd</sup> Co FMMR	1 <sup>st</sup> Co., Ft. Moultrie 2 <sup>nd</sup> Co., Ft. Moultrie 3 <sup>rd</sup> Co., Ft. Moultrie
	Growth of Garrison	Creation of the 4 <sup>th</sup> Co., Ft. Moultrie at FMMR	1 <sup>st</sup> Co., Ft. Moultrie 2 <sup>nd</sup> Co., Ft. Moultrie 3 <sup>rd</sup> Co., Ft. Moultrie 4 <sup>th</sup> Co., Ft. Moultrie
June 1917	Growth of Garrison	Creation of the 5 <sup>th</sup> Co., Ft. Moultrie at FMMR	1 <sup>st</sup> Co., Ft. Moultrie 2 <sup>nd</sup> Co., Ft. Moultrie 3 <sup>rd</sup> Co., Ft. Moultrie 4 <sup>th</sup> Co., Ft. Moultrie 5 <sup>th</sup> Co., Ft. Moultrie
August 1917	Shrinking of Garrison	Reassignment of the 2 <sup>nd</sup> Co., Ft. Moultrie to Ft. Adams, RI for deployment	1 <sup>st</sup> Co., Ft. Moultrie 3 <sup>rd</sup> Co., Ft. Moultrie 4 <sup>th</sup> Co., Ft. Moultrie 5 <sup>th</sup> Co., Ft. Moultrie
	Reorganization of Garrison	5 <sup>th</sup> Co., Ft. Moultrie redesignated 2 <sup>nd</sup> Co., Ft. Moultrie. All units changed from Ft. Moultrie to CDC	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston
	Growth of Garrison	Mobilization of the 1 <sup>st</sup> -5 <sup>th</sup> Co., South Carolina (SC) National Guard (NG), CAC	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 1 <sup>st</sup> Co., SC NG CAC 2 <sup>nd</sup> Co., SC NG CAC 3 <sup>rd</sup> Co., SC NG CAC 4 <sup>th</sup> Co., SC NG CAC 5 <sup>th</sup> Co., SC NG CAC
	Reorganization of Garrison	SC NG, CAC units redesignated into CD Charleston companies	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 6 <sup>th</sup> Co., CD Charleston 7 <sup>th</sup> Co., CD Charleston 8 <sup>th</sup> Co., CD Charleston 9 <sup>th</sup> Co., CD Charleston 10 <sup>th</sup> Co., CD Charleston

Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
April 1918	Growth of Garrison	Creation of four more companies- 5 <sup>th</sup> , 11 <sup>th</sup> , 12 <sup>th</sup> , and Headquarters Co., CD Charleston	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 5 <sup>th</sup> Co., CD Charleston 6 <sup>th</sup> Co., CD Charleston 7 <sup>th</sup> Co., CD Charleston 8 <sup>th</sup> Co., CD Charleston 9 <sup>th</sup> Co., CD Charleston 10 <sup>th</sup> Co., CD Charleston 11 <sup>th</sup> Co., CD Charleston 12 <sup>th</sup> Co., CD Charleston Headquarters Co., CD Charleston
May 1918- November 1918	Reorganization of Garrison into deploying CAC Artillery Regiments for the Western Front	- 61 <sup>st</sup> Artillery Regiment CAC mobilized at FMMR in May 1918 and deployed in June 1918. - 75 <sup>th</sup> Artillery Regiment CAC mobilized at FMMR in Aug 1918 and deployed in Sept 1918. - 36 <sup>th</sup> Artillery Regiment CAC mobilized at FMMR in Sept 1918 and deployed in Nov 1918.	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 5 <sup>th</sup> Co., CD Charleston 6 <sup>th</sup> Co., CD Charleston 7 <sup>th</sup> Co., CD Charleston 8 <sup>th</sup> Co., CD Charleston 9 <sup>th</sup> Co., CD Charleston 10 <sup>th</sup> Co., CD Charleston 11 <sup>th</sup> Co., CD Charleston 12 <sup>th</sup> Co., CD Charleston Headquarters Co., CD Charleston 36 <sup>st</sup> Artillery Reg. CAC 61 <sup>st</sup> Artillery Reg. CAC 75 <sup>st</sup> Artillery Reg. CAC
June 1918	Shrinking of Garrison	Deactivation of the 10 <sup>th</sup> , 11 <sup>th</sup> , and 12 <sup>th</sup> Co., CD Charleston with personnel moved into the 61 <sup>st</sup> Artillery Reg. CAC	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 5 <sup>th</sup> Co., CD Charleston 6 <sup>th</sup> Co., CD Charleston 7 <sup>th</sup> Co., CD Charleston 8 <sup>th</sup> Co., CD Charleston 9 <sup>th</sup> Co., CD Charleston Headquarters Co., CD Charleston 61 <sup>st</sup> Artillery Reg. CAC

Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
Aug 1918	Shrinking of Garrison	Redesignated the Headquarters Co. into the 10 <sup>th</sup> Co., CD Charleston	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 5 <sup>th</sup> Co., CD Charleston 6 <sup>th</sup> Co., CD Charleston 7 <sup>th</sup> Co., CD Charleston 8 <sup>th</sup> Co., CD Charleston 9 <sup>th</sup> Co., CD Charleston 10 <sup>th</sup> Co., CD Charleston 61 <sup>st</sup> Artillery Reg. CAC
Sept 1918	Shrinking of Garrison	Deactivation of the 8 <sup>th</sup> , 9 <sup>th</sup> , 10 <sup>th</sup> Co., CD Charleston with personnel moved into the 36 <sup>st</sup> Artillery Reg. CAC	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 5 <sup>th</sup> Co., CD Charleston 6 <sup>th</sup> Co., CD Charleston 7 <sup>th</sup> Co., CD Charleston 36 <sup>st</sup> Artillery Reg. CAC
Dec 1918	Shrinking of Garrison	Demobilization of the 6 <sup>th</sup> and 7 <sup>th</sup> Co., CD Charleston	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston 5 <sup>th</sup> Co., CD Charleston
Sept 1919	Shrinking of Garrison	Demobilization of the 5 <sup>th</sup> Co., CD Charleston	1 <sup>st</sup> Co., CD Charleston 2 <sup>nd</sup> Co., CD Charleston 3 <sup>rd</sup> Co., CD Charleston 4 <sup>th</sup> Co., CD Charleston
Sept 1921	Shrinking of Garrison	Inactivation of the 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> Co., CD Charleston	1 <sup>st</sup> Co., CD Charleston
June 1922	Reorganization of the CAC to prewar number designations	1 <sup>st</sup> Co., CD Charleston redesignated the 170 <sup>th</sup> Co., CAC. Inactive 2 <sup>nd</sup> and 3 <sup>rd</sup> Co, CD Charleston redesignated the 145 <sup>th</sup> and 180 <sup>th</sup> Co, CAC	170 <sup>th</sup> Co., CAC (Active) 145 <sup>th</sup> Co., CAC (Inactive) 180 <sup>th</sup> Co., CAC (Inactive)

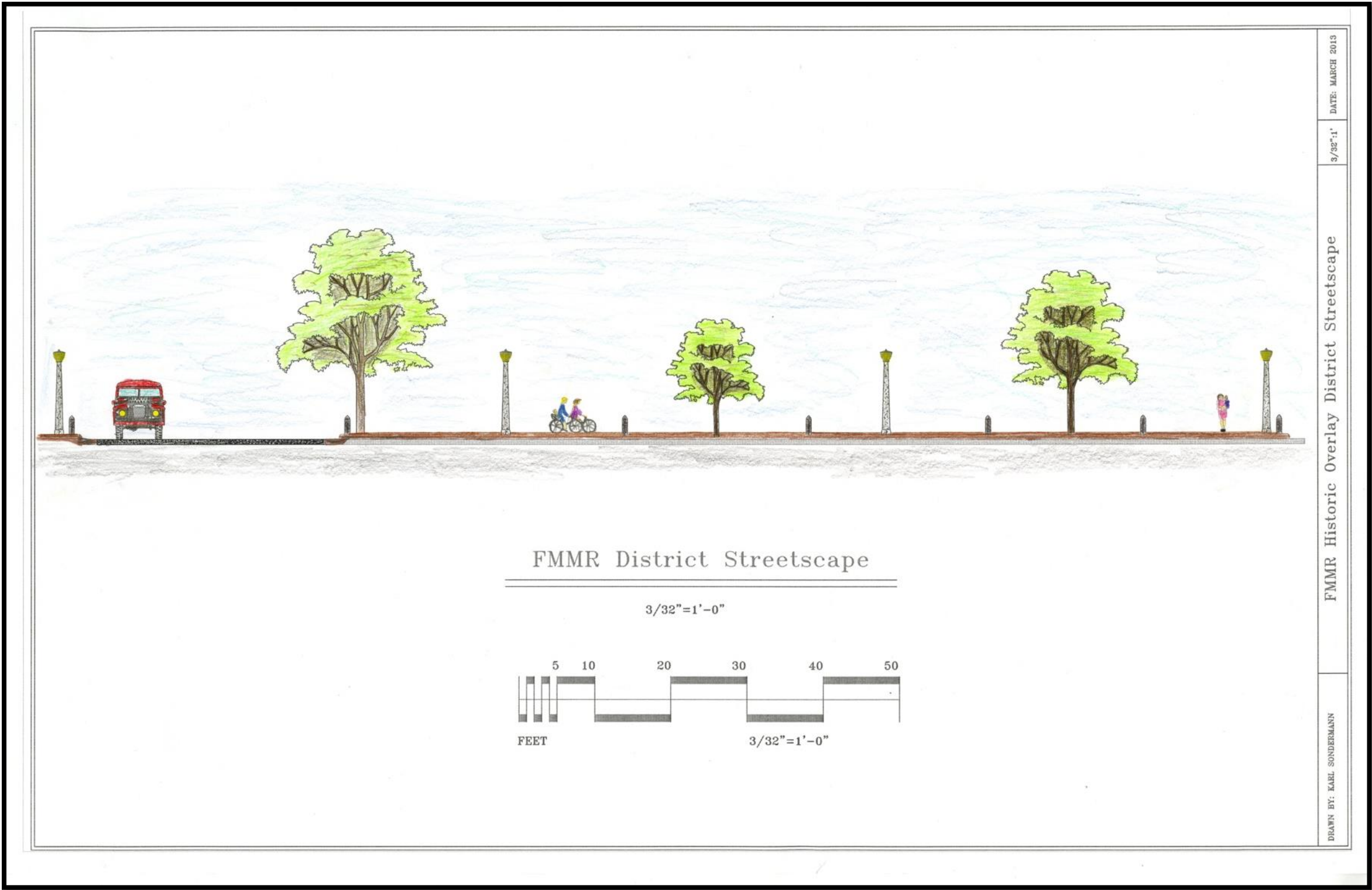


Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
June 1924	Reorganization of CAC into U.S Army Regimental System	FMMR became part of the 13 <sup>th</sup> Coastal Artillery Regiment responsible for protecting the southeastern coast of the United States. 170 <sup>th</sup> Co., CAC (Active) was redesignated as Battery D, 13 <sup>th</sup> CA Reg. 145 <sup>th</sup> Co., CAC (Inactive) was redesignated as Battery C, 13 <sup>th</sup> CA Reg. and reassigned to Ft. Barrancas, FL. 180 <sup>th</sup> Co., CAC (Inactive) was redesignated as Battery K (Inactive), 13 <sup>th</sup> CA Reg.	Battery D, 13 <sup>th</sup> CA Reg. Battery K (Inactive), 13 <sup>th</sup> CA Reg.
1925	Growth of Garrison	Reassignment of the 2 <sup>nd</sup> Battalion, 8 <sup>th</sup> U.S. Infantry and the Headquarters, 8 <sup>th</sup> U.S. Infantry to FMMR	Battery D, 13 <sup>th</sup> CA Reg. Battery K (Inactive), 13 <sup>th</sup> CA Reg. 2 <sup>nd</sup> BN, 8 <sup>th</sup> US Infantry HQ, 8 <sup>th</sup> US Infantry
1926-1940	Growth of Garrison Annual Training Exercises by National Guard and Reserve Units	The 252 <sup>nd</sup> CA Regiment North Carolina NG, 263 <sup>rd</sup> CA Regiment South Carolina NG, 264 <sup>th</sup> CA Regiment Georgia NG, 265 <sup>th</sup> CA Regiment Florida NG, Reserve Officer Training Corps and Civilian Military Training Camps conducted annual training at FMMR	Battery D, 13 <sup>th</sup> CA Reg. Battery K (Inactive), 13 <sup>th</sup> CA Reg. 2 <sup>nd</sup> BN, 8 <sup>th</sup> US Infantry HQ, 8 <sup>th</sup> US Infantry <u>Temporary Assignment</u> 252 <sup>nd</sup> CA Reg., NC NG 263 <sup>rd</sup> CA Reg., SC NG 264 <sup>th</sup> CA Reg., GA NG 265 <sup>th</sup> CA Reg., FL NG ROTC and CMTC units
1933-1940	Growth of Garrison CCC Mission	FMMR selected as the basic training facility for South Carolina's CCC units and location for the District I headquarters and supply companies.	Battery D, 13 <sup>th</sup> CA Reg. Battery K (Inactive), 13 <sup>th</sup> CA Reg. 2 <sup>nd</sup> BN, 8 <sup>th</sup> US Infantry HQ, 8 <sup>th</sup> US Infantry District I HQ and Supply Companies, 4 <sup>th</sup> Corps CCC <u>Temporary Assignment</u> 252 <sup>nd</sup> CA Reg., NC NG 263 <sup>rd</sup> CA Reg., SC NG 264 <sup>th</sup> CA Reg., GA NG 265 <sup>th</sup> CA Reg., FL NG ROTC and CMTC units

Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
June 1940	Shrinking of Garrison	Reassignment of 8 <sup>th</sup> US Inf. to Ft. Benning, GA	Battery D, 13 <sup>th</sup> CA Reg. Battery K (Inactive)
	Growth of Garrison	Reassignment of the 70 <sup>th</sup> Coastal Artillery Regiment (Anti-aircraft) from Ft. Monroe, VA to FMMR	Battery D, 13 <sup>th</sup> CA Reg. Battery K (Inactive), 13 <sup>th</sup> CA Reg. 70 <sup>th</sup> CA Reg.
Sept 1940	Selective Service Act Growth of Garrison	Activation of Battery K, 13 <sup>th</sup> CA Reg. at FMMR	Battery D, 13 <sup>th</sup> CA Reg. Battery K, 13 <sup>th</sup> CA Reg. 70 <sup>th</sup> CA Reg.
	Growth of Garrison	Mobilization of 252 <sup>nd</sup> CA Reg., NC NG at FMMR	Battery D, 13 <sup>th</sup> CA Reg. Battery K, 13 <sup>th</sup> CA Reg. 70 <sup>th</sup> CA Reg. 252 <sup>nd</sup> CA Reg., NC NG
Dec 1940	Shrinking of Garrison	Reassignment of the 70 <sup>th</sup> CA Reg. to Ft. Stewart, GA and the 252 <sup>nd</sup> CA Reg., NC NG to Ft. Screven, GA.	Battery D, 13 <sup>th</sup> CA Reg. Battery K, 13 <sup>th</sup> CA Reg.
	Growth of Garrison	Mobilization of the 8 companies of the 263 <sup>rd</sup> CA Reg., SC NG at FMMR	Battery D, 13 <sup>th</sup> CA Reg. Battery K, 13 <sup>th</sup> CA Reg. Battery A- G, HQ, 263 <sup>rd</sup> CA Reg., SC NG
Summer 1941	Shrinking of Garrison	Inactivation of Battery K, to fill personnel shortages in Battery D, 13 <sup>th</sup> CA Reg.	Battery D, 13 <sup>th</sup> CA Reg. Battery A- G, HQ, 263 <sup>rd</sup> CA Reg., SC NG
April 1942	Shrinking of Garrison	Inactivation of Battery D, 13 <sup>th</sup> CA Reg. with personnel moved into the 263 <sup>rd</sup> CA Reg., SC NG	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery D, 263 <sup>rd</sup> CA Reg. Battery E, 263 <sup>rd</sup> CA Reg. Battery F, 263 <sup>rd</sup> CA Reg. Battery G, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg.
Dec 1942	Shrinking of Garrison	Reassignment of the 2 <sup>nd</sup> BN, 263 <sup>rd</sup> CA Reg. composing of the Batteries D, E, and F to Key West, FL	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery G, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg.
	Growth of Garrison	Reassignment of the 2 <sup>nd</sup> BN, 50 <sup>th</sup> CA Regiment from Camp Pendleton, VA to FMMR	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery G, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg. Battery C, 50 <sup>th</sup> CA Reg. Battery D, 50 <sup>th</sup> CA Reg. HQ, 2 <sup>nd</sup> BN 50 <sup>th</sup> CA Reg.

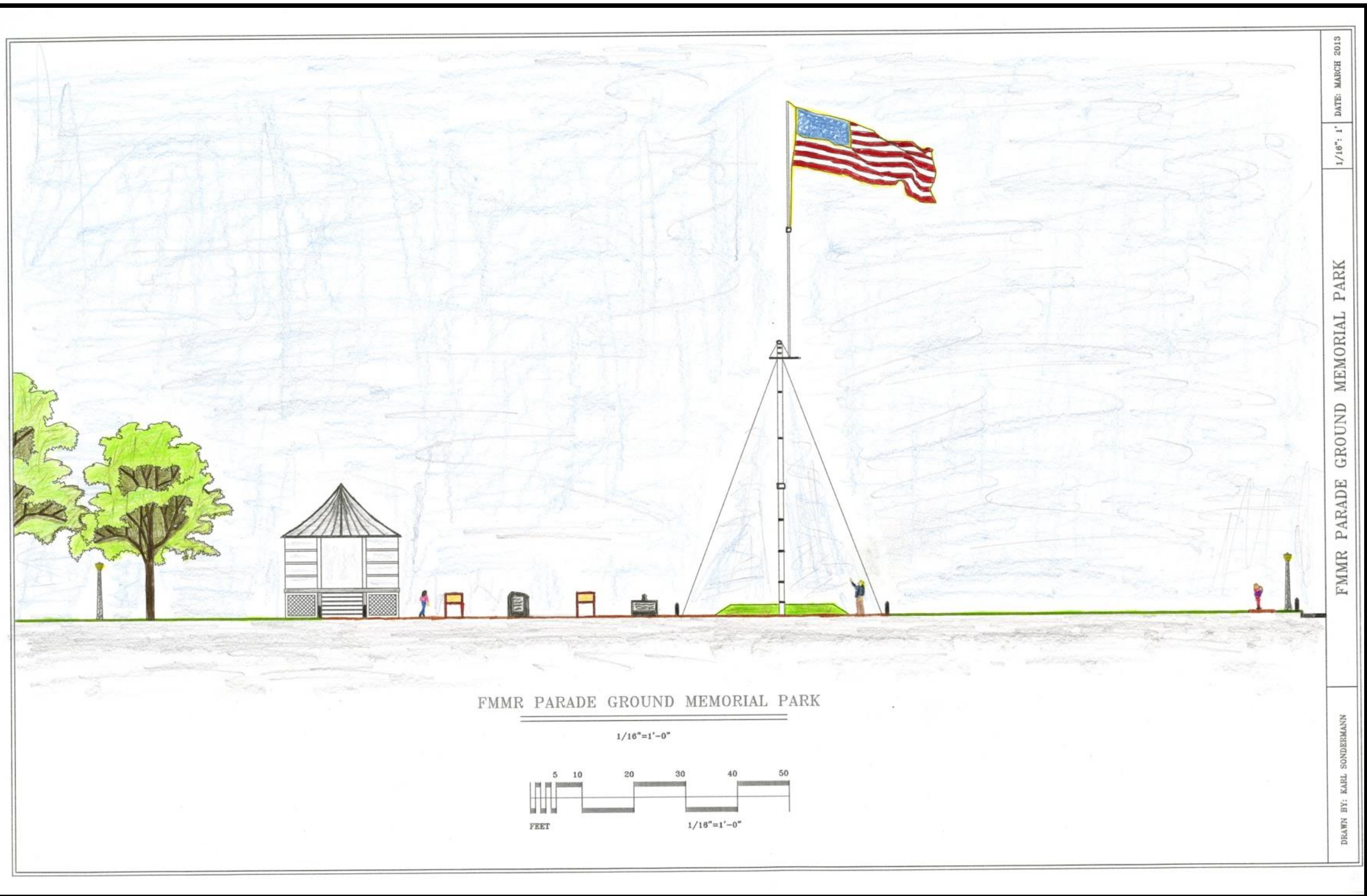
Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
April 1943	Shrinking of Garrison	Reassignment of the 2 <sup>nd</sup> BN, 50 <sup>th</sup> CA Regiment to Key West, FL	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery D, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg.
	Growth of Garrison	Reassignment of the 2 <sup>nd</sup> BN, 263 <sup>rd</sup> CA Reg. composing of the Batteries D, E, and F back from Key West, FL to FMMR	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery D, 263 <sup>rd</sup> CA Reg. Battery E, 263 <sup>rd</sup> CA Reg. Battery F, 263 <sup>rd</sup> CA Reg. Battery G, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg.
May 1943	Shrinking of Garrison	Deactivation of Battery D, 263 <sup>rd</sup> CA Reg.	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery E, 263 <sup>rd</sup> CA Reg. Battery F, 263 <sup>rd</sup> CA Reg. Battery G, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg.
1943	Growth of Garrison	Activation of FMMR's WAC Detachment	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery E, 263 <sup>rd</sup> CA Reg. Battery F, 263 <sup>rd</sup> CA Reg. Battery G, 263 <sup>rd</sup> CA Reg. HQ, 263 <sup>rd</sup> CA Reg. WAC Detachment, FMMR
March 1944	Shrinking of Garrison Reorganization of Coastal Defense Command	Reassignment of the HQ battery, 263 <sup>rd</sup> CA Reg. for Camp Rucker, AL and reassignment of Battery F and G to Ft. Jackson, SC	Battery A, 263 <sup>rd</sup> CA Reg. Battery B, 263 <sup>rd</sup> CA Reg. Battery C, 263 <sup>rd</sup> CA Reg. Battery E, 263 <sup>rd</sup> CA Reg. HECP/HDCP WAC Det. FMMR
	Shrinking of Garrison Reassignment of 263 <sup>rd</sup> throughout southeastern United States	Reassignment of Battery A to Jacksonville, FL. Reassignment of Battery B to Wilmington, NC. Reassignment of Battery C to Savannah, GA.	Battery E, 263 <sup>rd</sup> CA Reg. HECP/HDCP Reg. HQ, 263 <sup>rd</sup> CA Reg. WAC Detachment, FMMR
June 1944	Growth of Garrison	Savannah, GA defenses were discontinued, allowing Battery C to return to FMMR	Battery C, 263 <sup>rd</sup> CA Reg. Battery E, 263 <sup>rd</sup> CA Reg. HECP/HDCP Reg. HQ, 263 <sup>rd</sup> CA Reg. WAC Det. FMMR

Date of Change	Change to FMMR	Unit Changes	FMMR Total Garrison
Oct 1944	Shrinking of Garrison Deactivation of the 263 <sup>rd</sup> CA Reg. and creation of the Harbor Defenses of Charleston (HD Charleston)	Redesignated Battery C, 263 <sup>rd</sup> CA Reg. as Battery A, HD Charleston. Redesignated Battery E, 263 <sup>rd</sup> CA Reg. as Battery C, HD Charleston. Redesignated Reg. HQ, 263 <sup>rd</sup> CA Reg. as HQ, HD Charleston.	Battery A, HD Charleston Battery C, HD Charleston HQ, HD Charleston WAC Detachment, FMMR
	Growth of Garrison	Activated Batteries B, D and G, HD Charleston	Battery A, HD Charleston Battery B, HD Charleston Battery C, HD Charleston Battery D, HD Charleston Battery G, HD Charleston HQ, HD Charleston WAC Detachment, FMMR
Apr 1945	Shrinking of Garrison	Deactivation of Batteries A and C, HD Charleston	Battery B, HD Charleston Battery D, HD Charleston Battery G, HD Charleston HQ, HD Charleston WAC Detachment, FMMR
June 1945	Shrinking of Garrison	Deactivation of Batteries D and G, HD Charleston	Battery B, HD Charleston HQ, HD Charleston WAC Detachment, FMMR
Mar 1946	Shrinking of Garrison	Deactivation of Battery B, HD Charleston and WAC Detachment, FMMR	HQ, HD Charleston
July-Oct 1946	Growth of Garrison	Activation and Closure of the 3 <sup>rd</sup> US Army's Recreation Center	HQ, HD Charleston 3 <sup>rd</sup> US Army Rec. Center
Aug 15, 1947	FMMR Closed	Deactivation of HQ, HD Charleston	









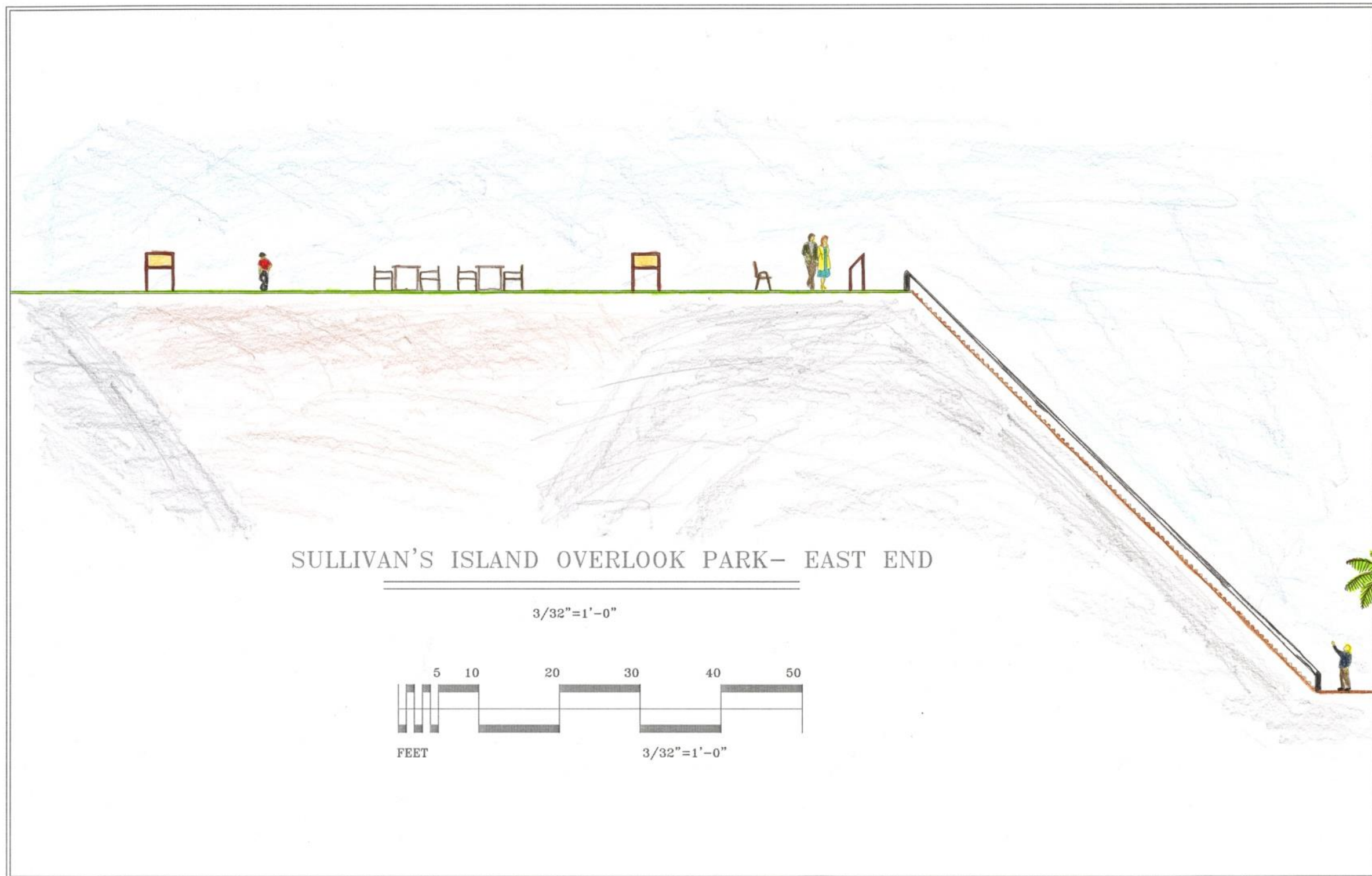




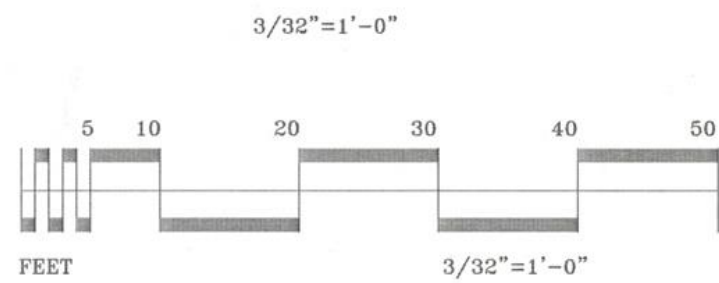


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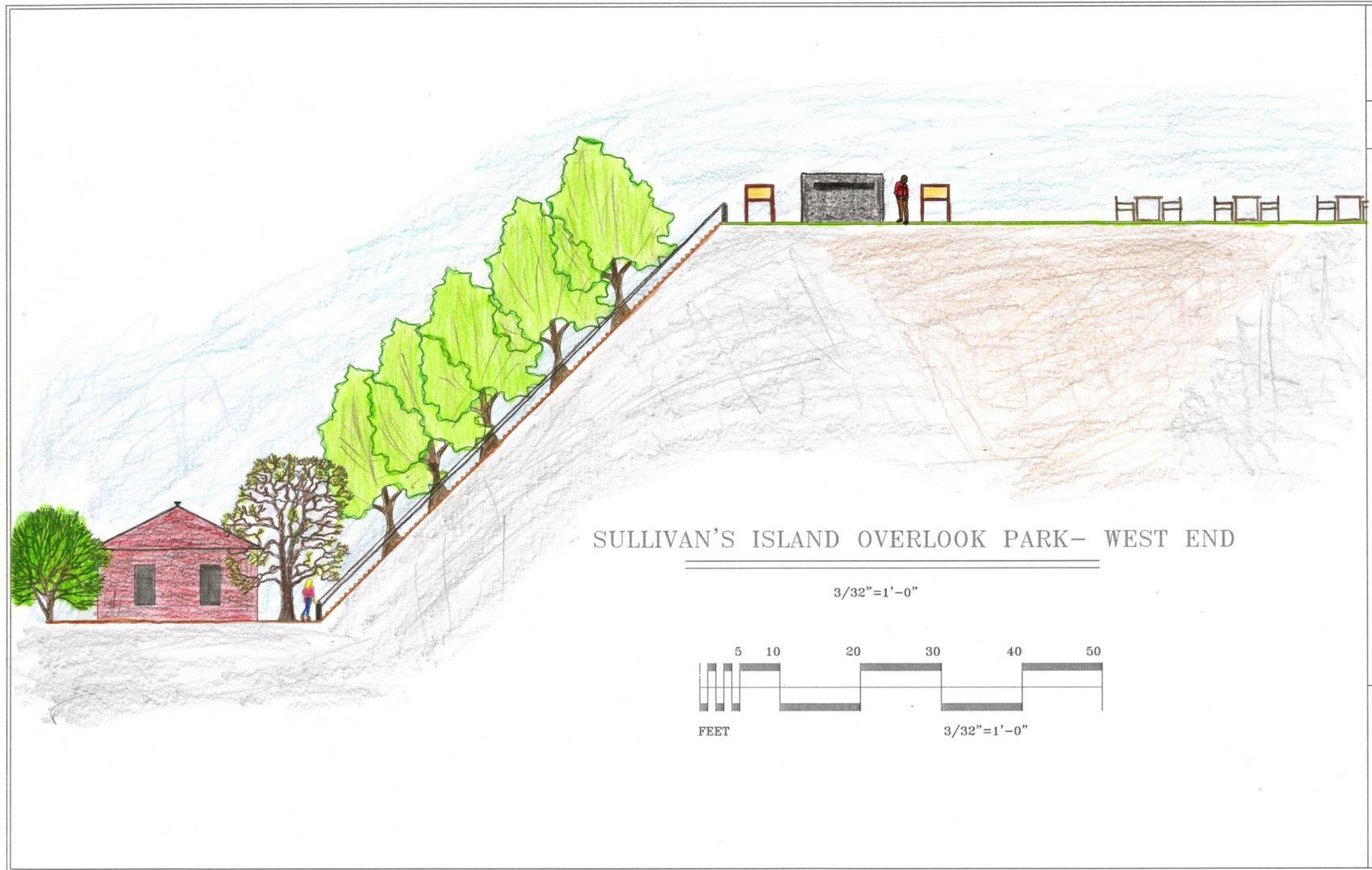
SULLIVAN'S ISLAND OVERLOOK PARK- EAST END



DATE: MARCH 2013  
3/32"=1'  
SULLIVAN'S ISLAND OVERLOOK PARK  
DRAWN BY: KARL SONDERMANN







3/32": 1' DATE: MARCH 2013

SULLIVAN'S ISLAND OVERLOOK PARK

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